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Bosworth Edition

The London Organ School Series.

FIRST STUDIES

at the

Organ

by

CUTHBERT HARRIS

Mus. Doc. Dunelm. F.R.C.O.

2/6 net.

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First Studies at the Organ

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CUTHBERT HARRIS.
Mus. Doc., Dunelm, F.R.C.O.

Exercises for alternate feet.

The sign ∧ indicates the point of the foot. Signs placed above a note refer to the right foot; those placed below refer to the left foot.

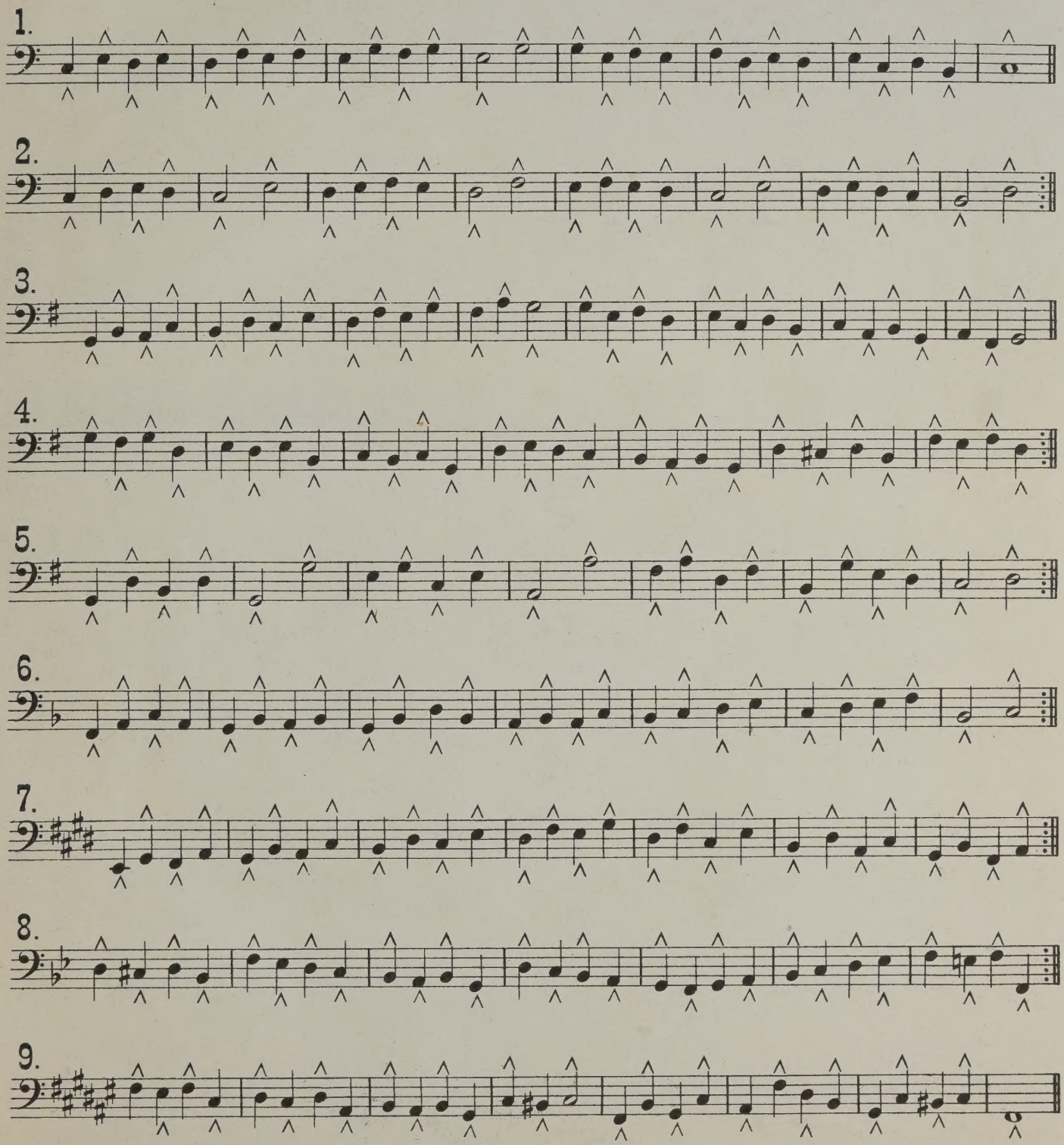
Die ersten Orgel-Studien

von

CUTHBERT HARRIS.
Mus. Doc., Dunelm, F.R.C.O.

Abwechselnde Fuss-Übungen.

Das Zeichen ∧ bedeutet: Fuss-spitze. Die Zeichen über einer Note betreffen den rechten Fuss; die Zeichen unter einer Note den linken Fuss.



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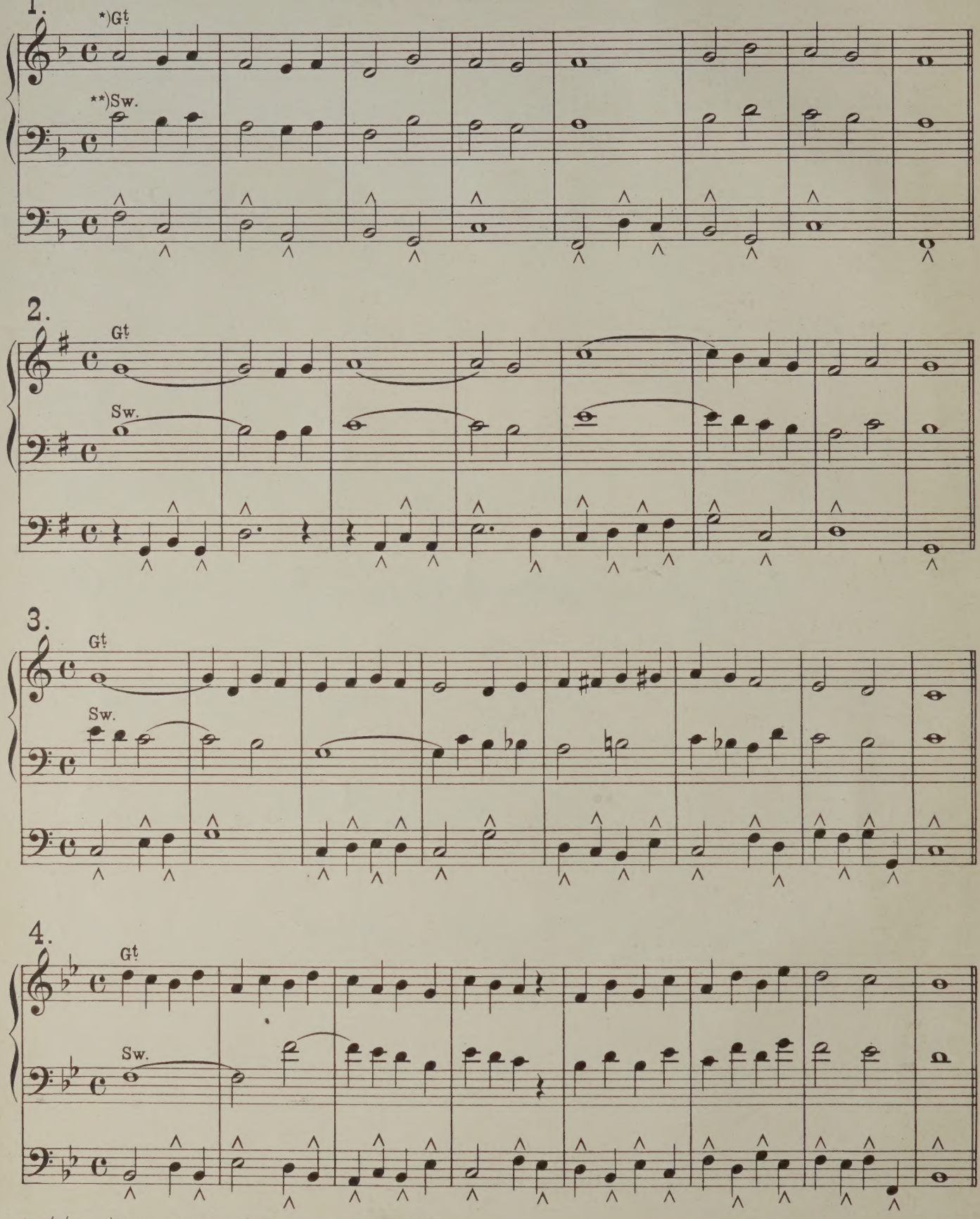
Four Easy Trios

for Pedals and Manuals Combined.

Vier leichte Terzette

für Pedalen und Manualen in Verbindung.



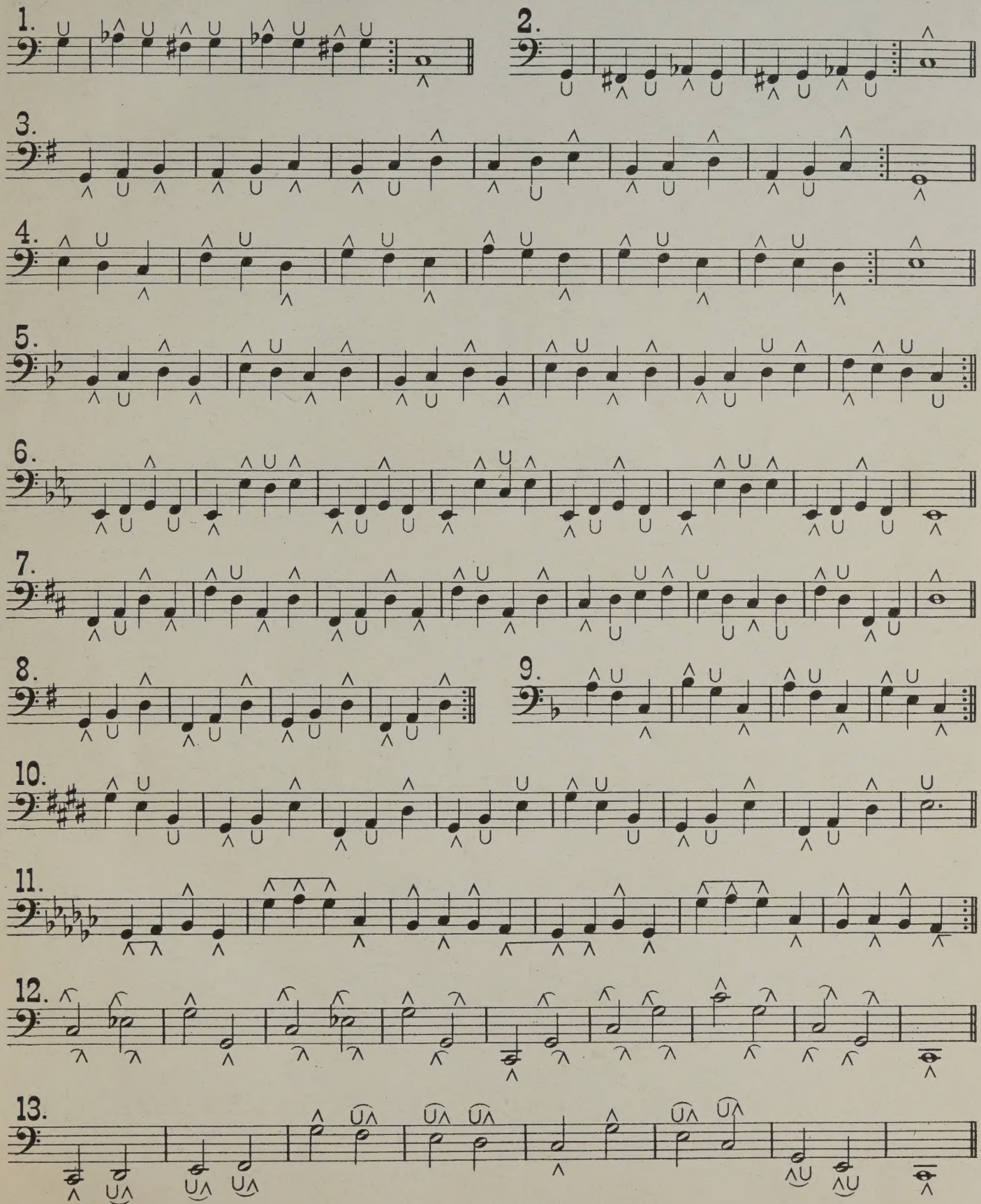
*) Gt (Great) bedeutet Volles Werk resp. Grosses Werk.
**) Sw. (Swell) bedeutet Schwellwerk.

Exercises for Toe and Heel, &c.

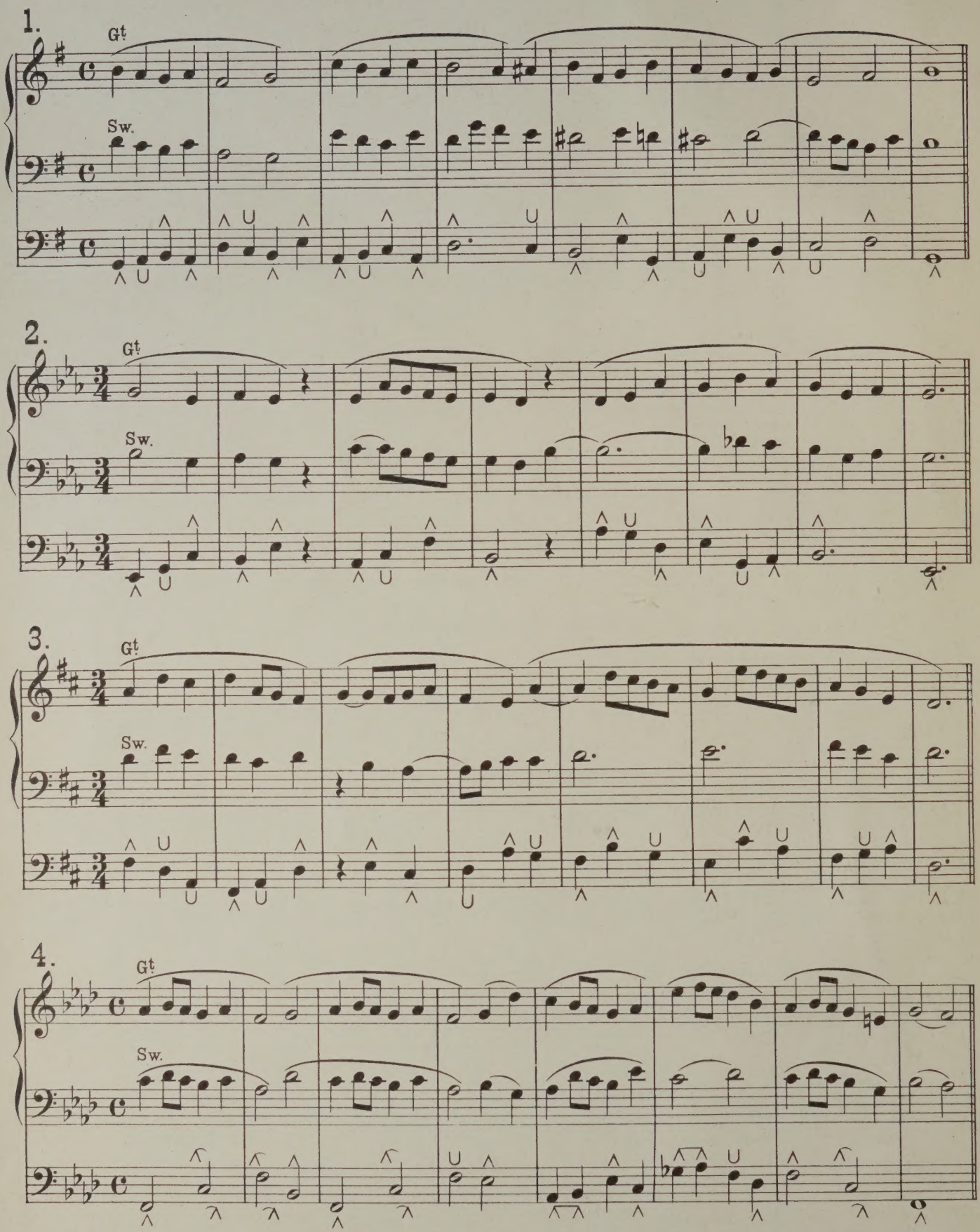
The Sign ∪ indicates the heel. When, as in Exercise Nº 11, two or more signs are joined thus: ∧∧, it denotes the glissando use of the point of the foot over two or more of the short keys. The Signs ∧ ∧ indicate the changing of the feet on the same pedal-key, Exercise Nº 12. The Signs ∪ ∧ indicate the changing from the heel to the toe of the same foot, Exercise Nº 13.

Übungen für Fuss- Spitze u. Haken, u. s. w.

Das Zeichen ∪ bedeutet: Haken. Sind, wie bei der Übung Nº 11, zwei oder mehr Zeichen zusammenverbunden z. B. ∧∧, so bedeutet dies, dass die Fussspitze über zwei oder mehr der kurzen (Ober-) Pedalen zu gleiten hat. Das Zeichen ∧ ∧ bedeutet das Wechseln der Füsse auf derselben Pedale, Übung Nº 12. Das Zeichen ∪ ∧ bedeutet das Wechseln von dem Haken zur Spitze desselben Fusses, Übung Nº 13.



Four Easy Trios. | Vier leichte Terzette.

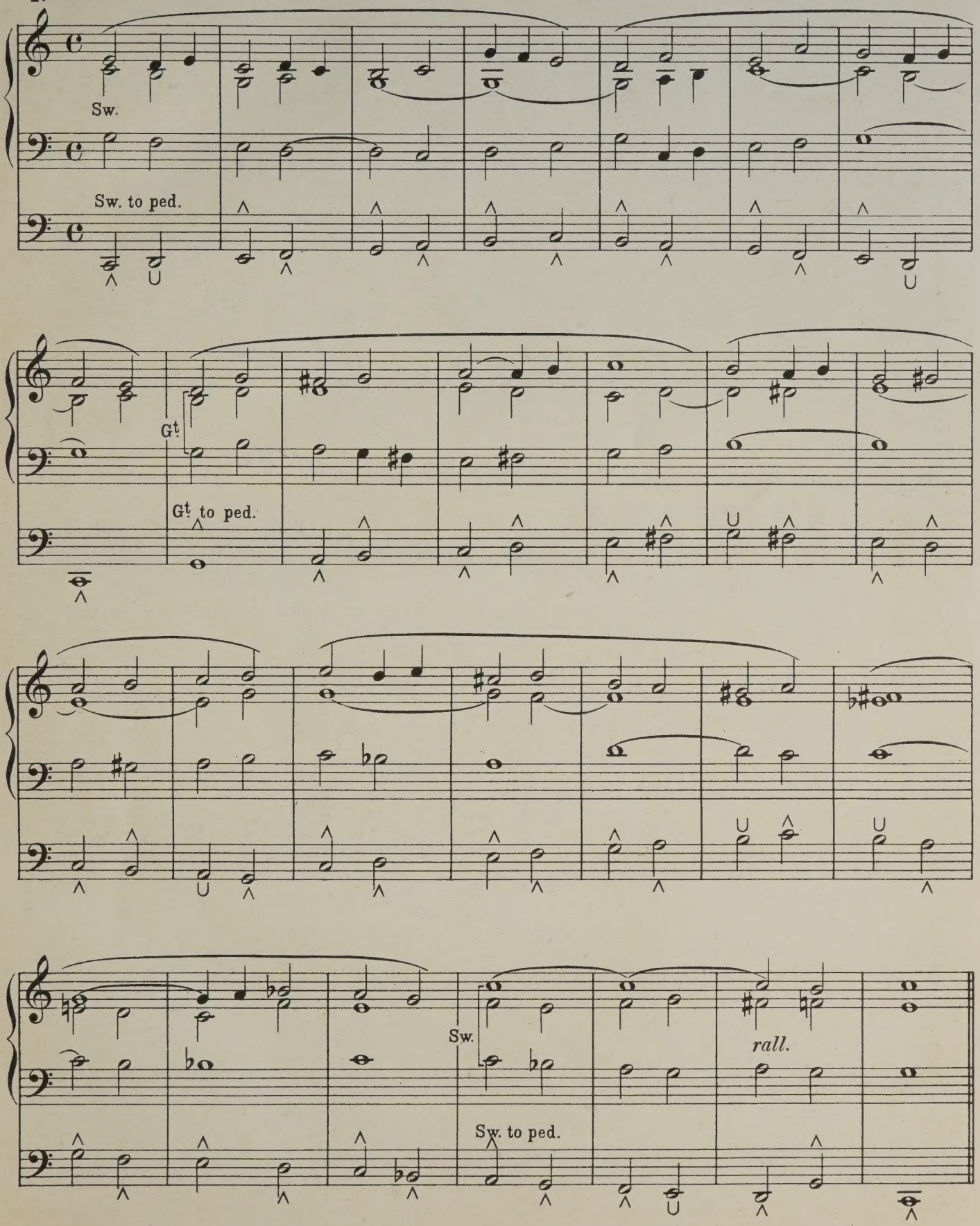


The Student may now learn the "Two Easy Preludes" Nº 1 of "The Organ School" Series.

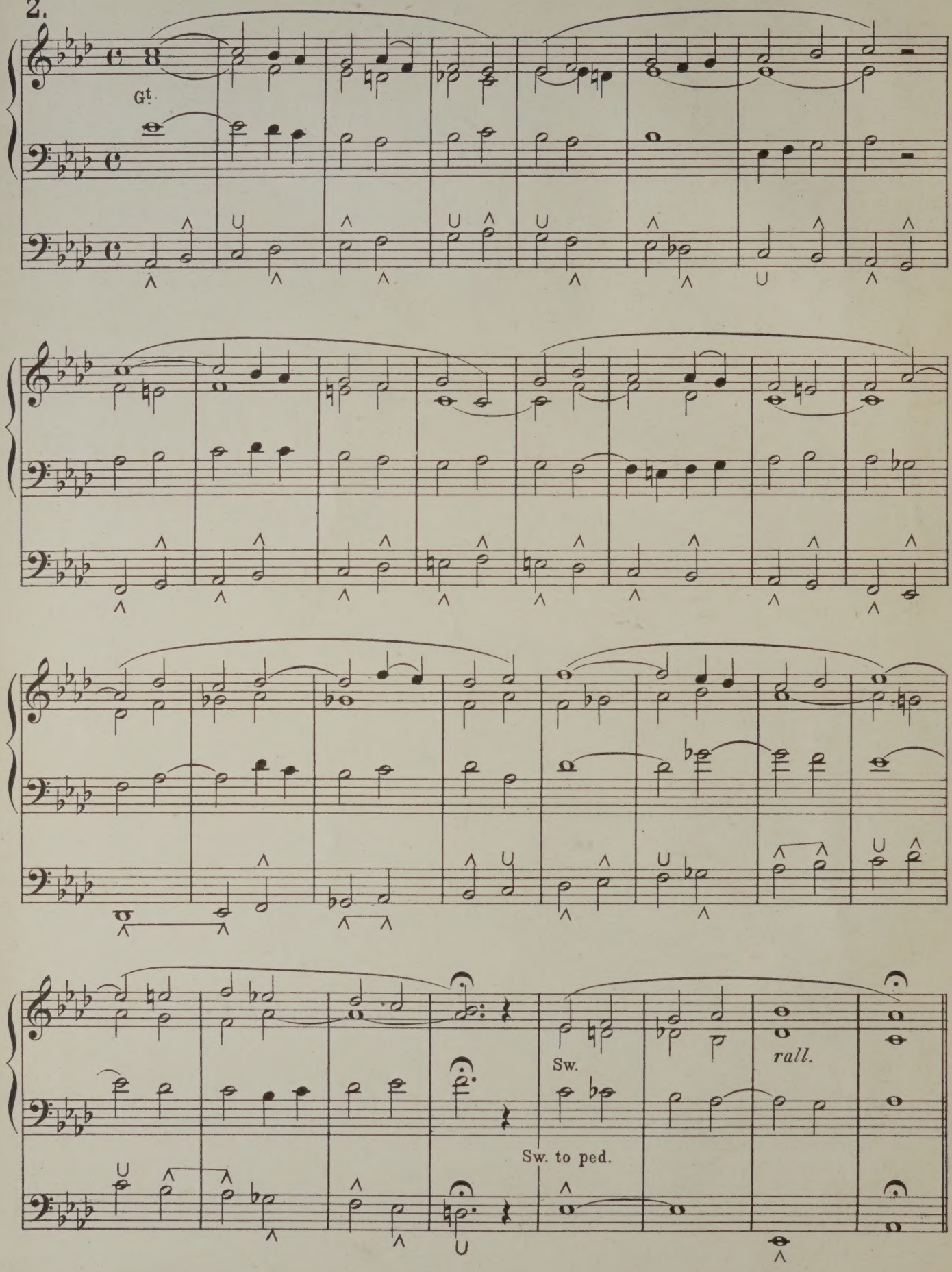
Der Lernende kann die „Zwei leichte Präludien" der „Orgel-Schulen-Sammlung" einstudiren.

Two Preludes in Pedal Scales. | Zwei Präludien in Pedalen-Tonleiter.

1.



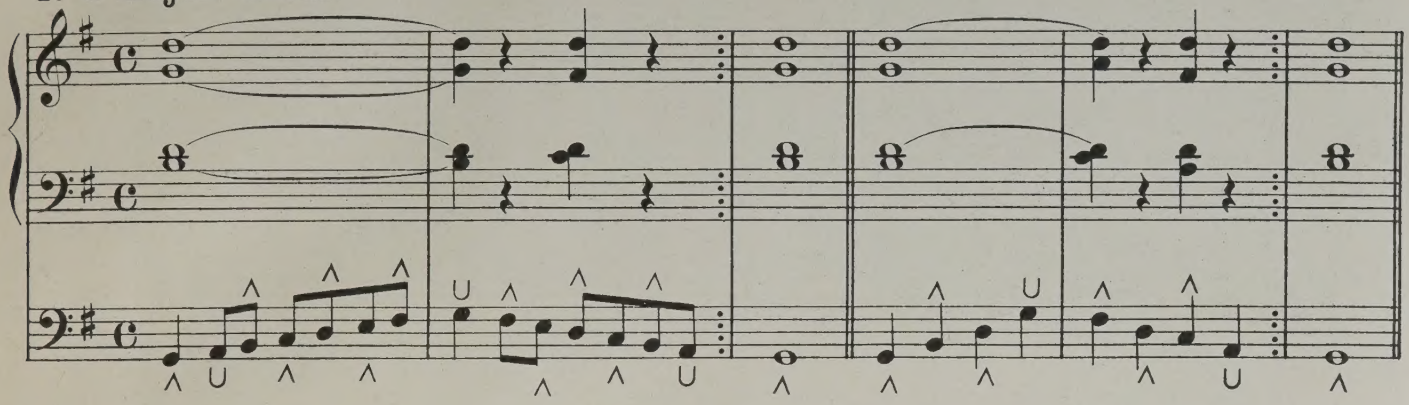
2.



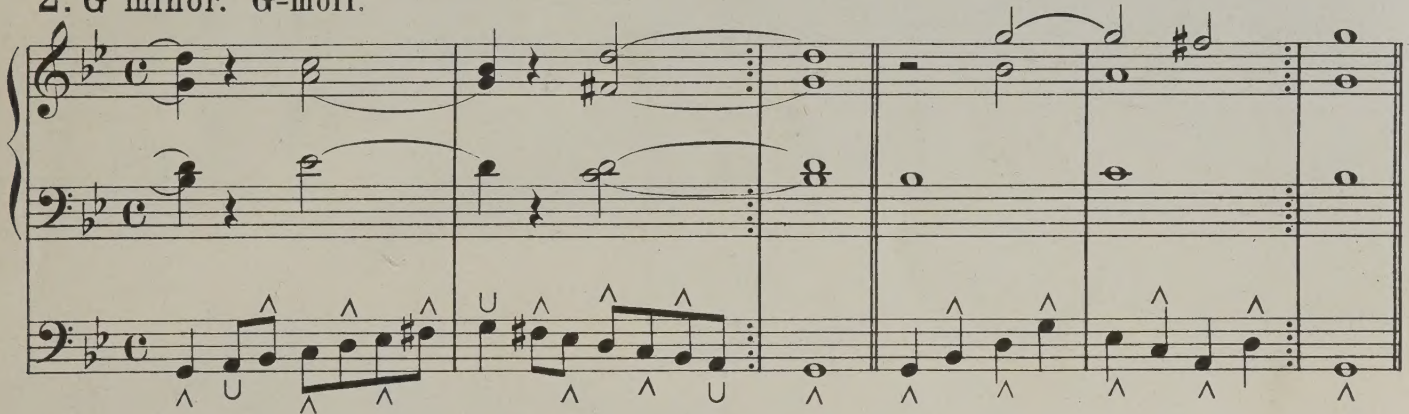
Major and Minor Scales and Arpeggio passages in the Compass of an octave.

Dur-und Moll-Tonleiter und arpeggirte Figuren im Umfange einer Oktave.

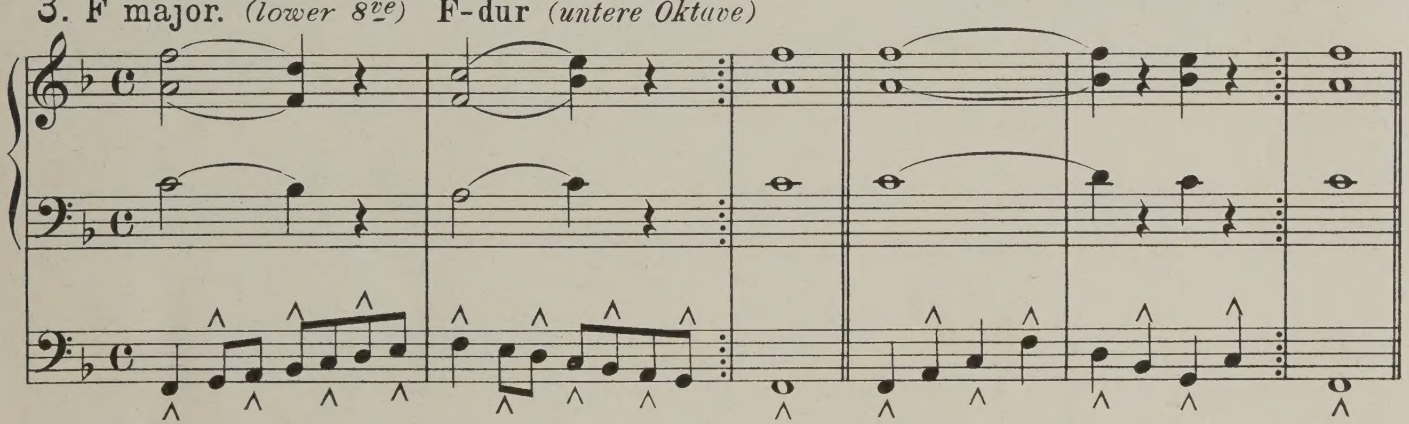
1. G major. G-dur.



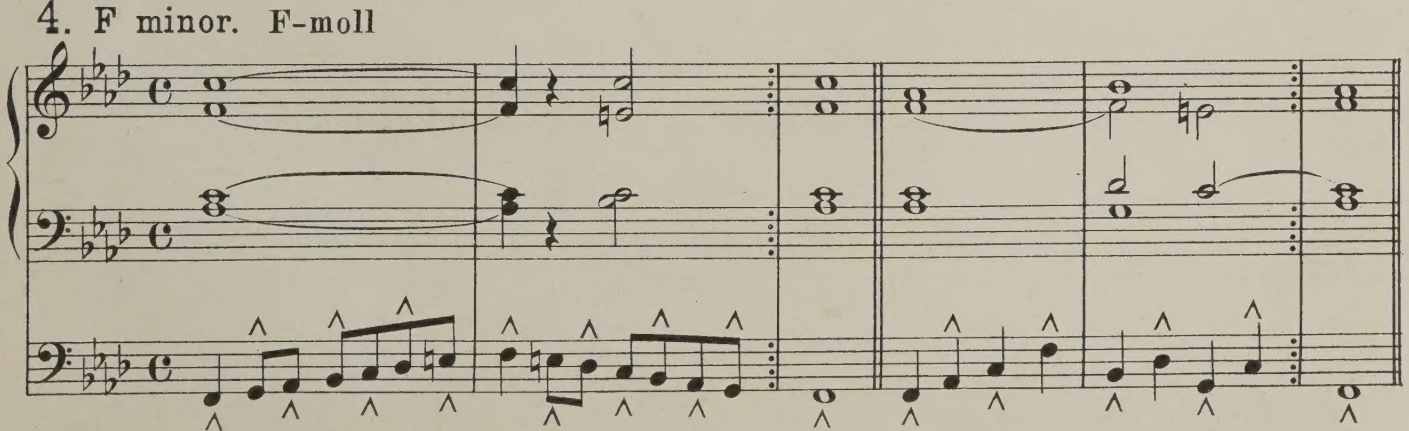
2. G minor. G-moll.



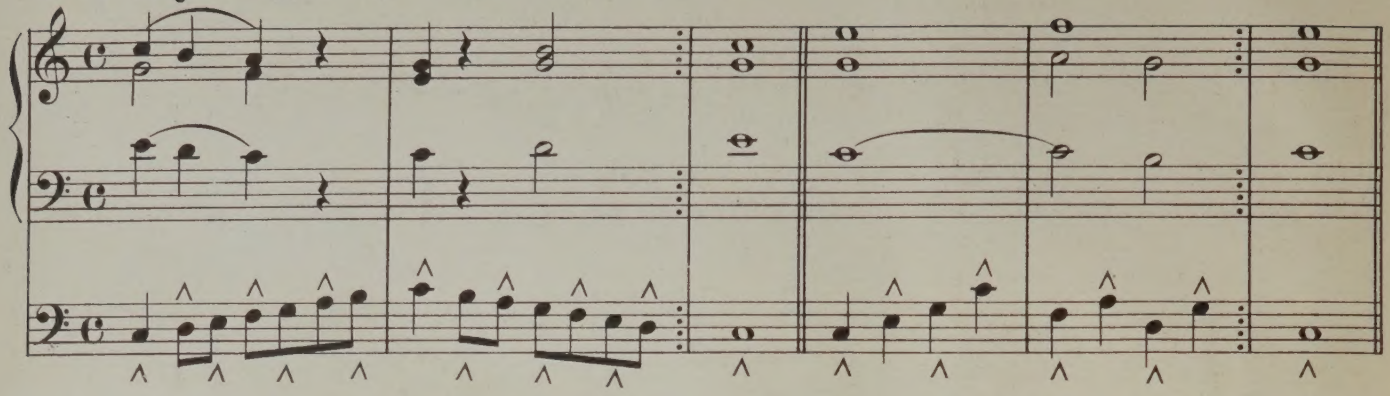
3. F major. *(lower 8ve)* F-dur *(untere Oktave)*



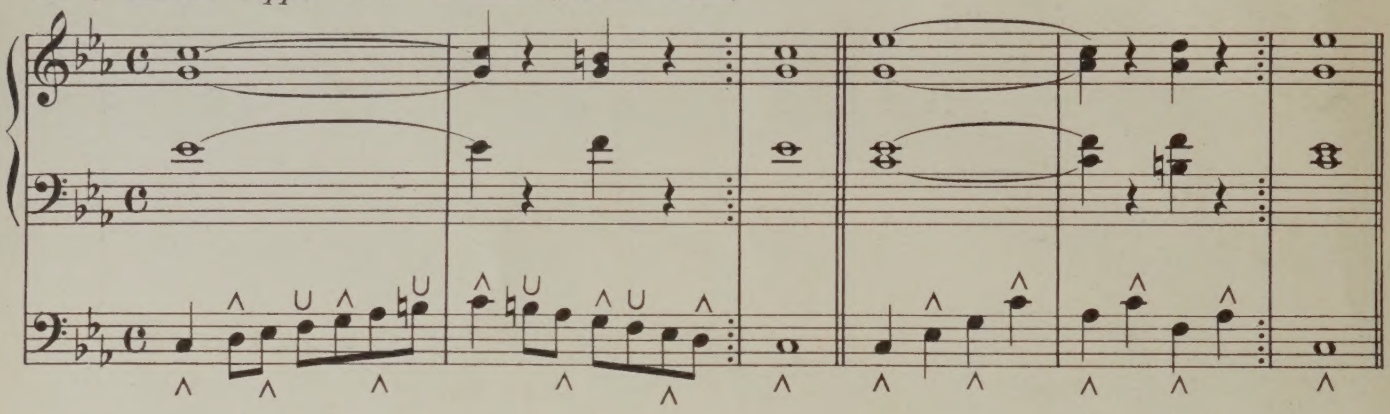
4. F minor. F-moll



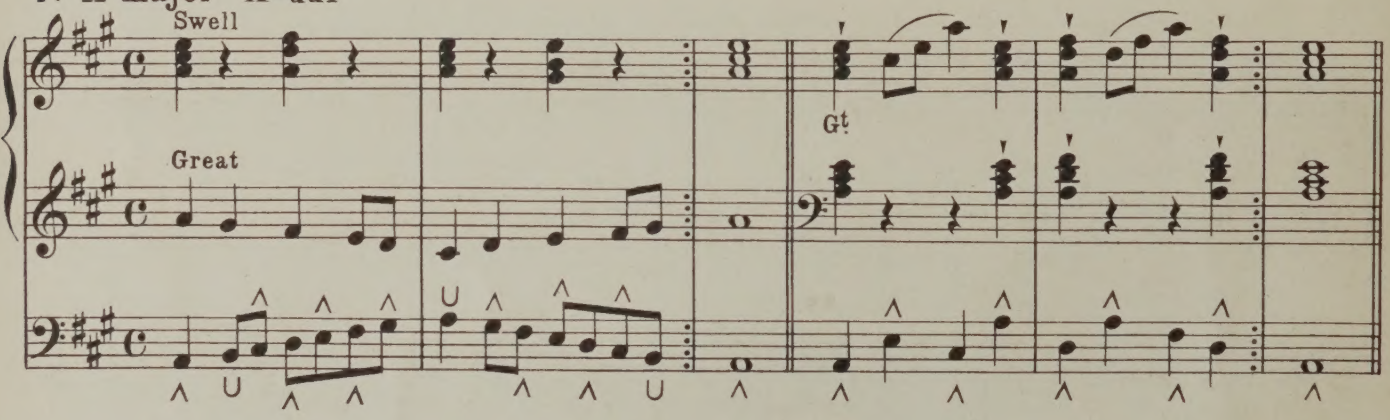
5. C major *(upper 8ve)* C-dur *(obere Oktave)*



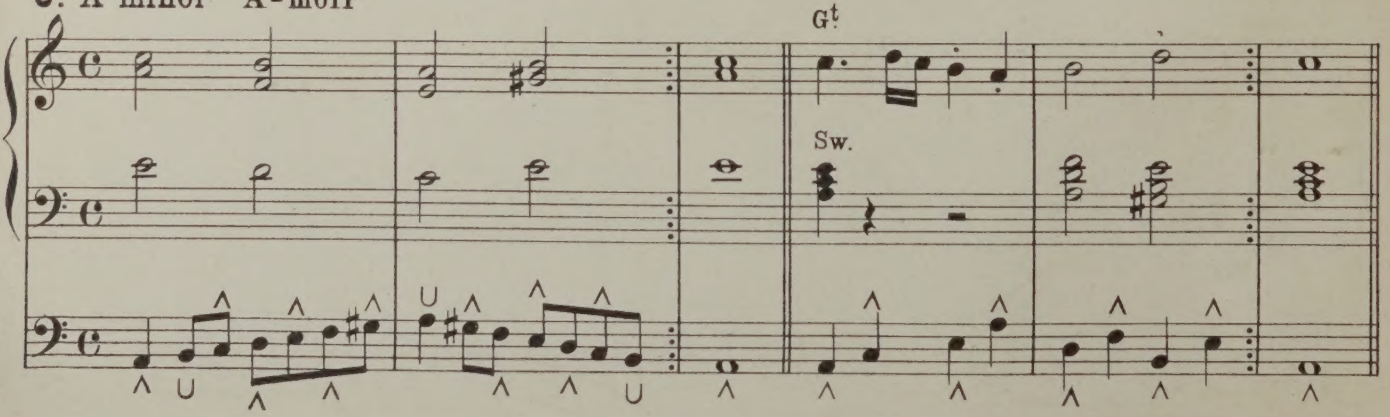
6. C minor *(upper 8ve)* C-moll *(obere Oktave)*



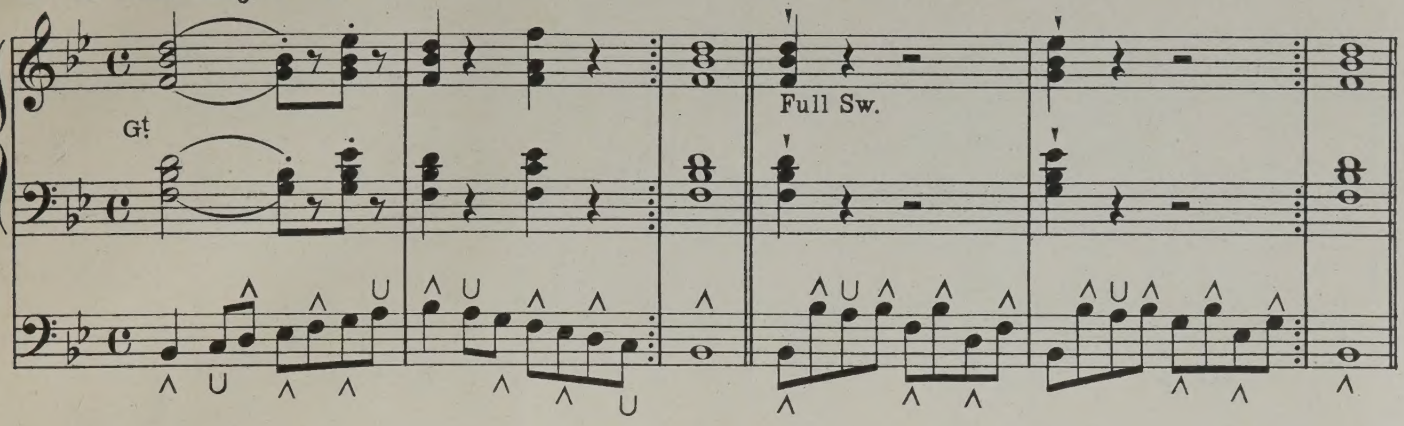
7. A major A-dur



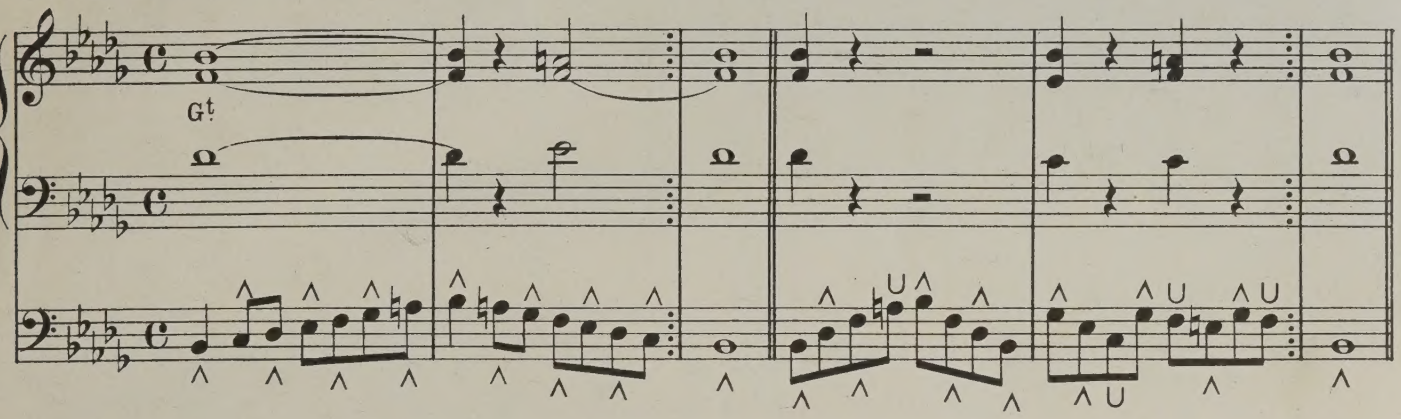
8. A minor A-moll



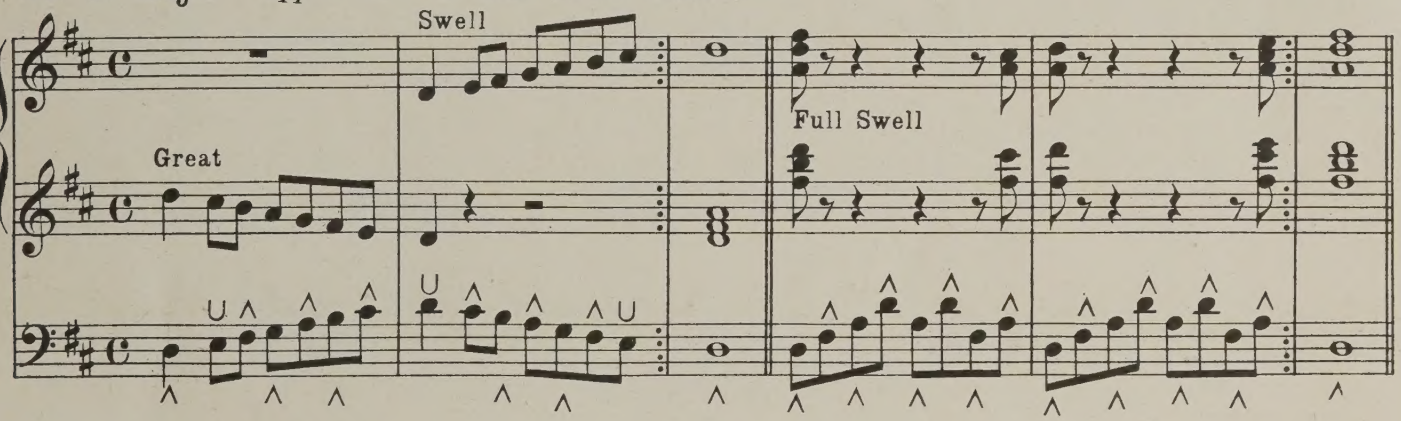
9. B flat major B-dur



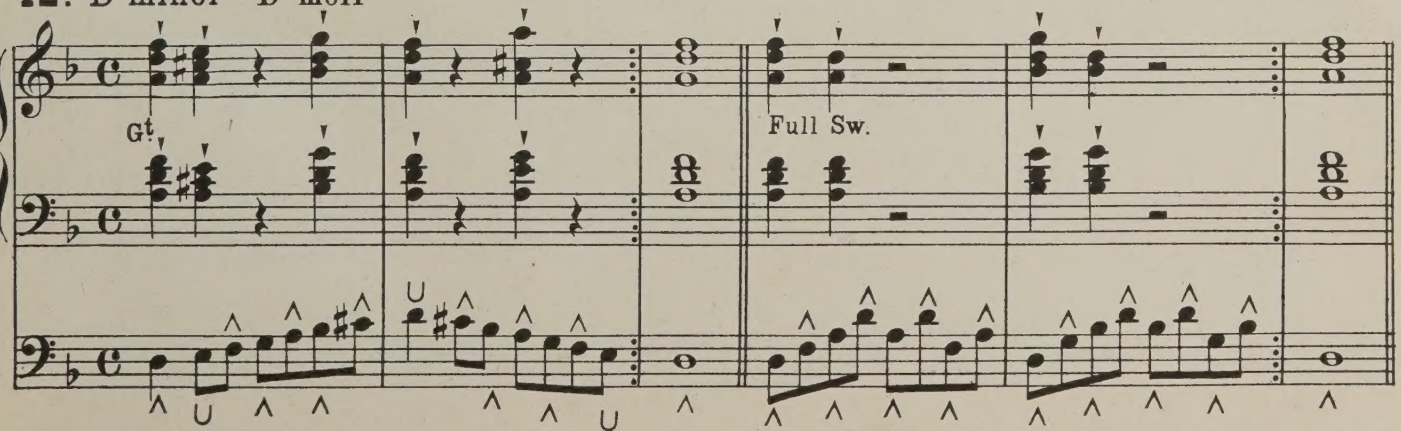
10. B flat minor B-moll



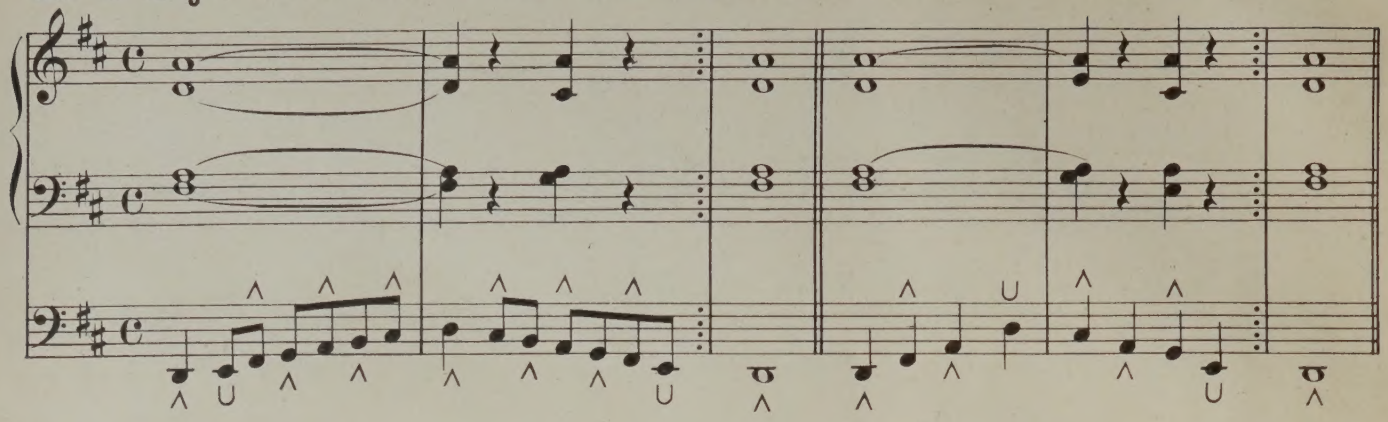
11. D major *upper 8ve* D-dur *(obere Oktave)*



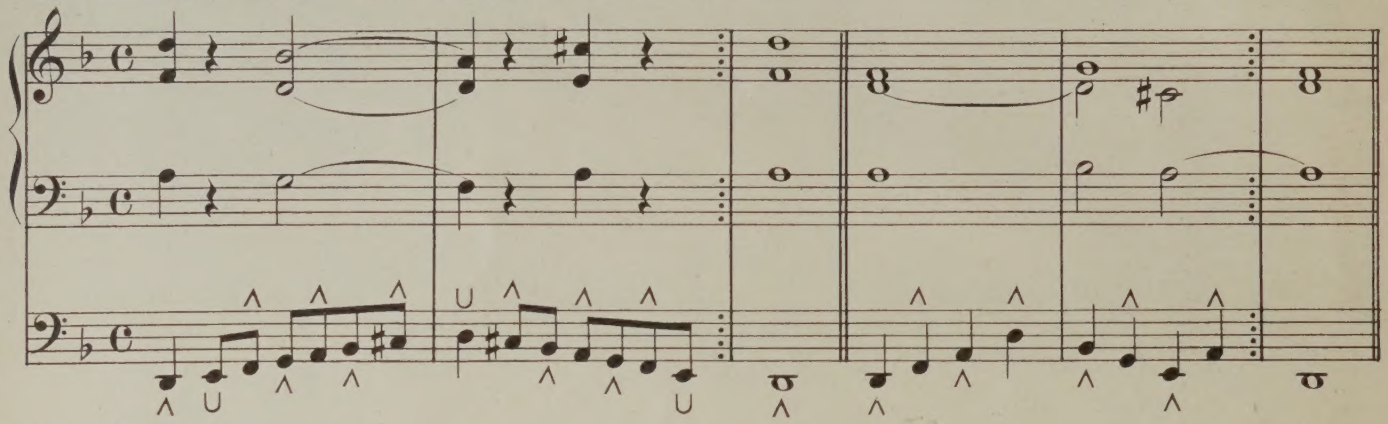
12. D minor D-moll



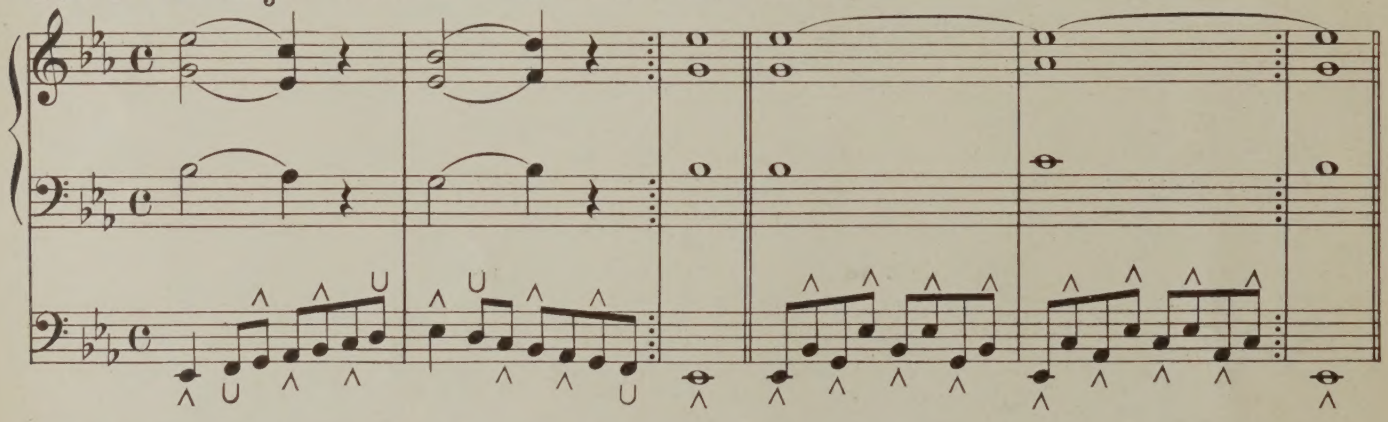
13. D major *(lower 8va)* D-dur *(untere Oktave)*



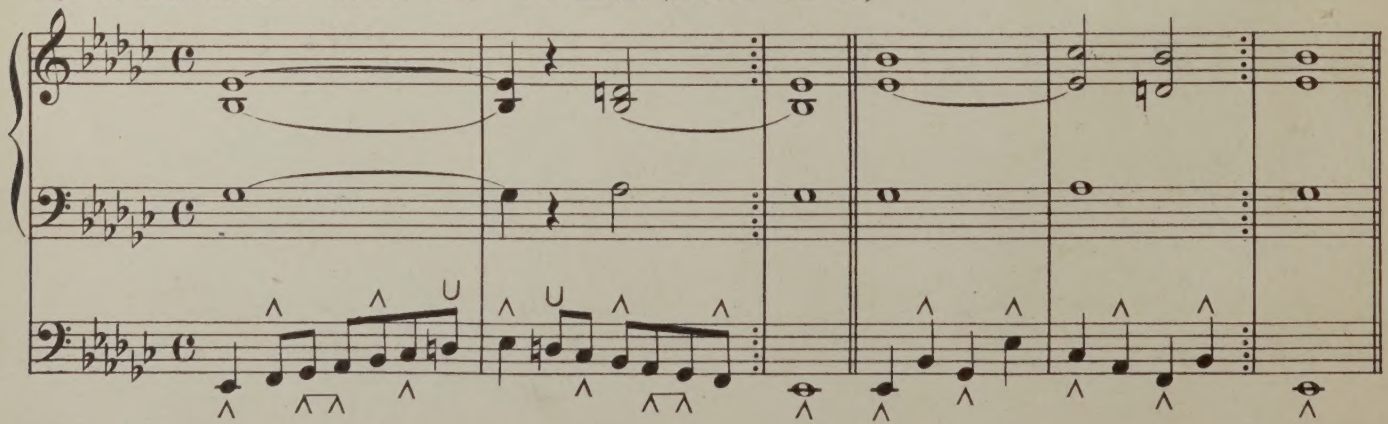
14. D minor *(lower 8va)* D-moll *(untere Oktave)*



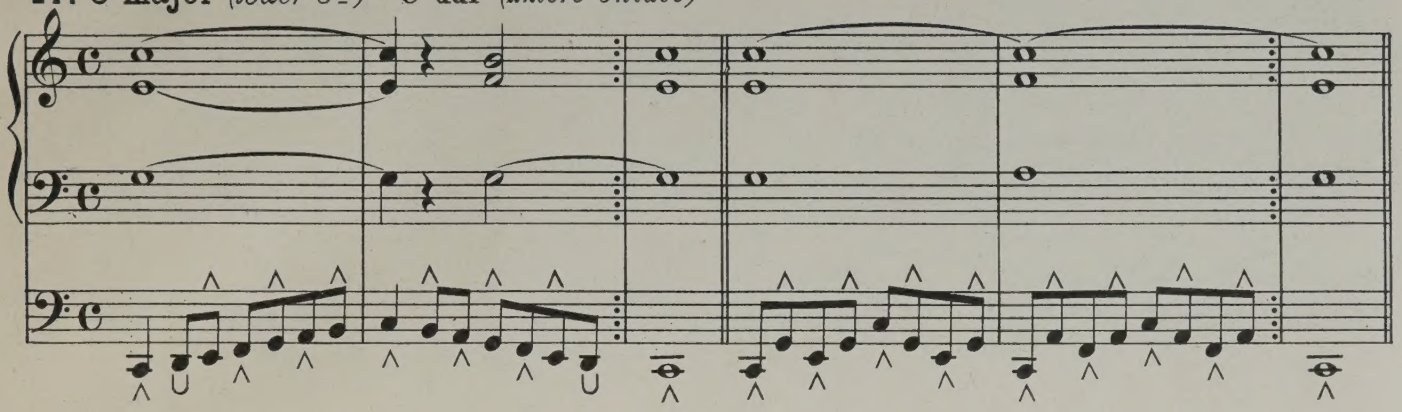
15. E flat major *(lower 8va)* Es-dur *(untere Oktave)*



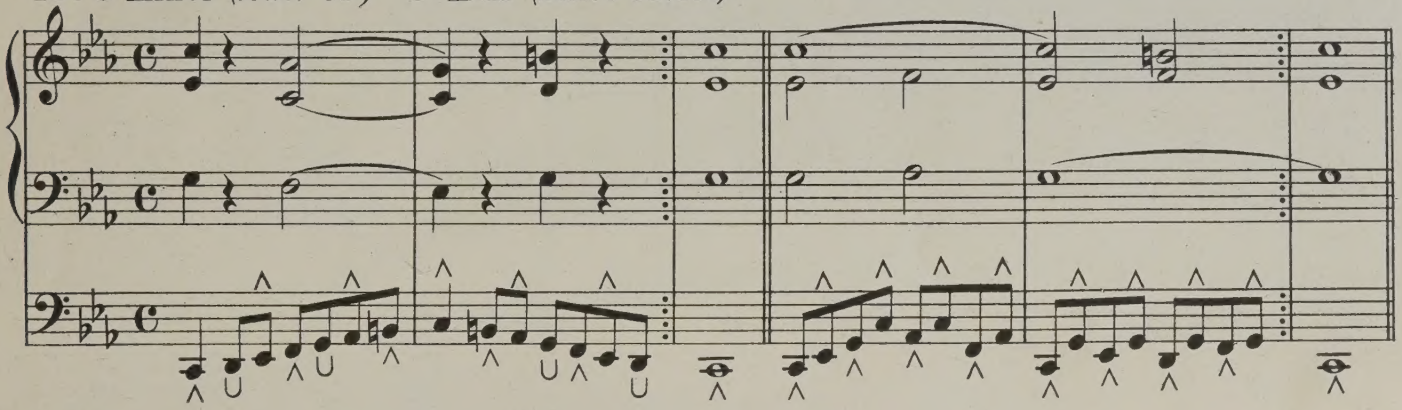
16. E flat minor *(lower 8va)* Es-moll *(untere Oktave)*



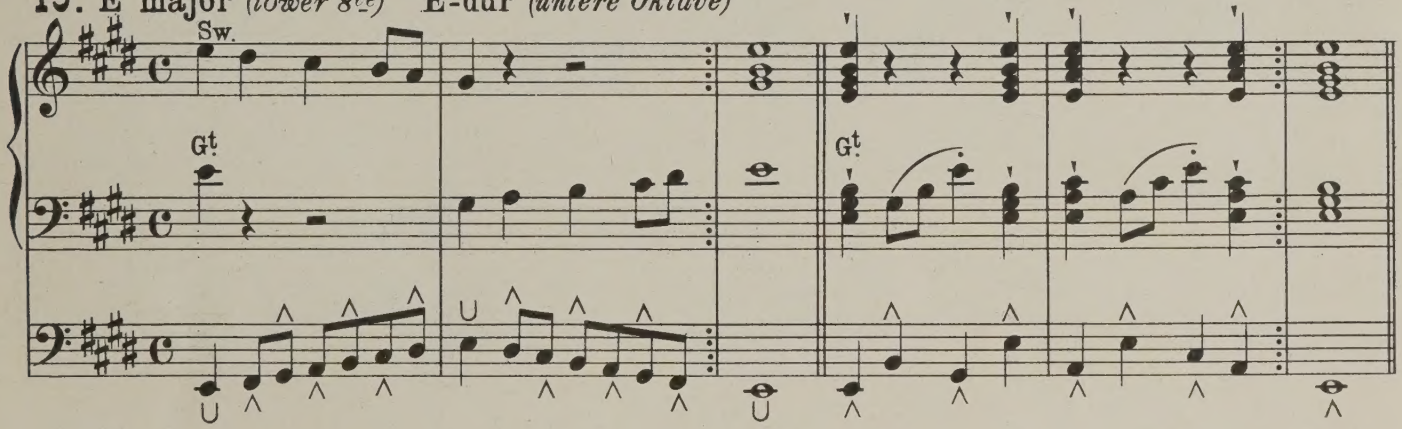
17. C major *(lower 8ve)* C-dur *(untere Oktave)*



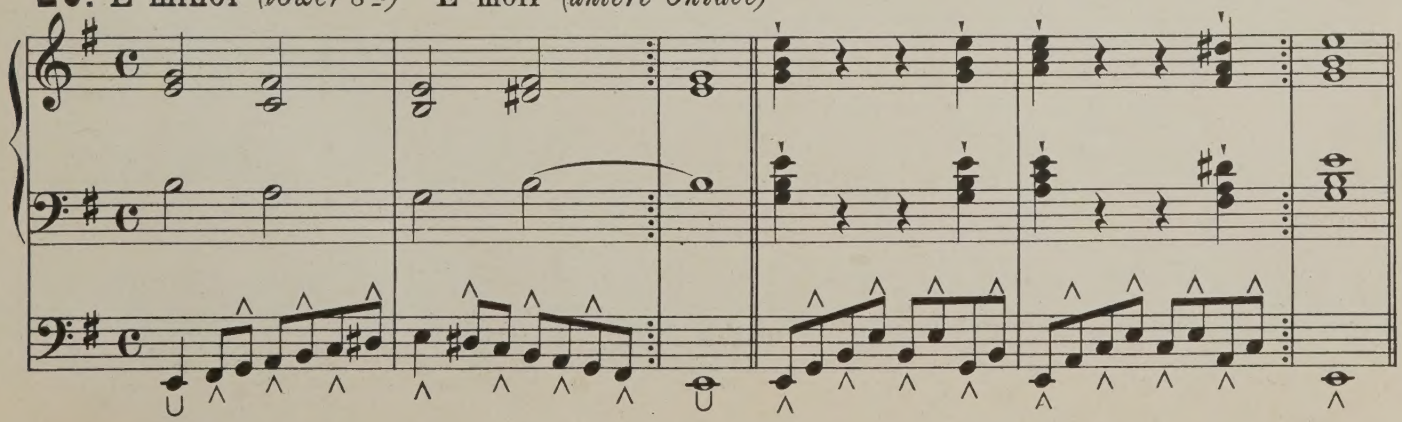
18. C minor *(lower 8ve)* C-moll *(untere Oktave)*



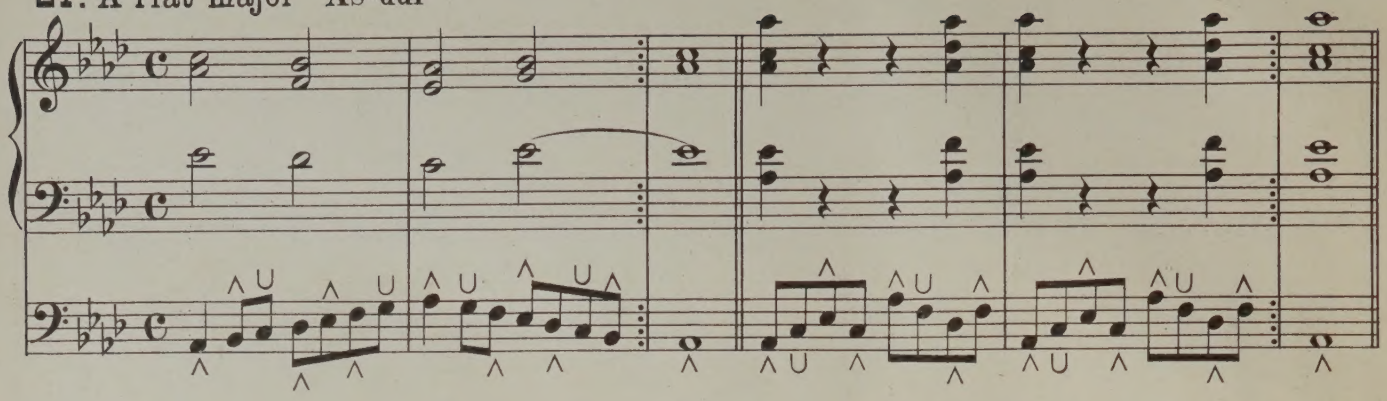
19. E major *(lower 8ve)* E-dur *(untere Oktave)*



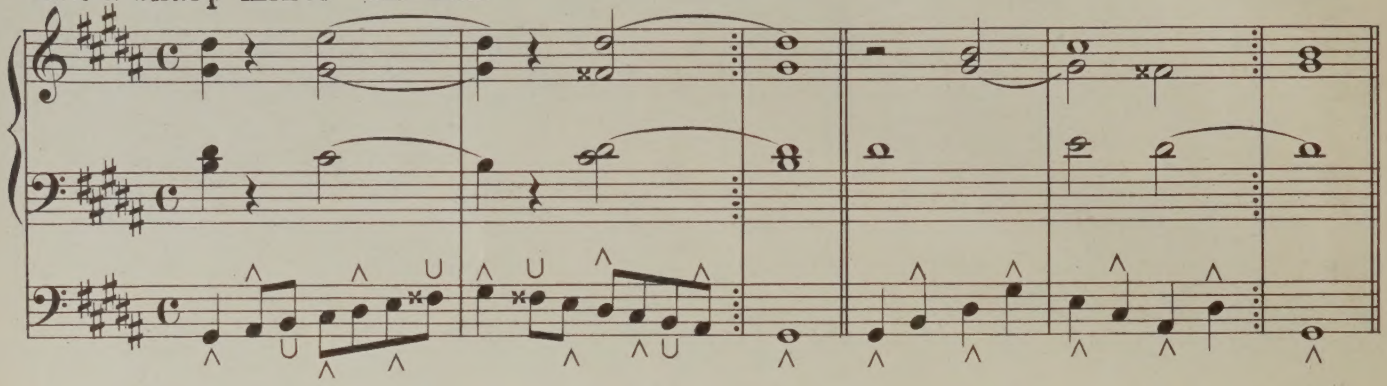
20. E minor *(lower 8ve)* E-moll *(untere Oktave)*



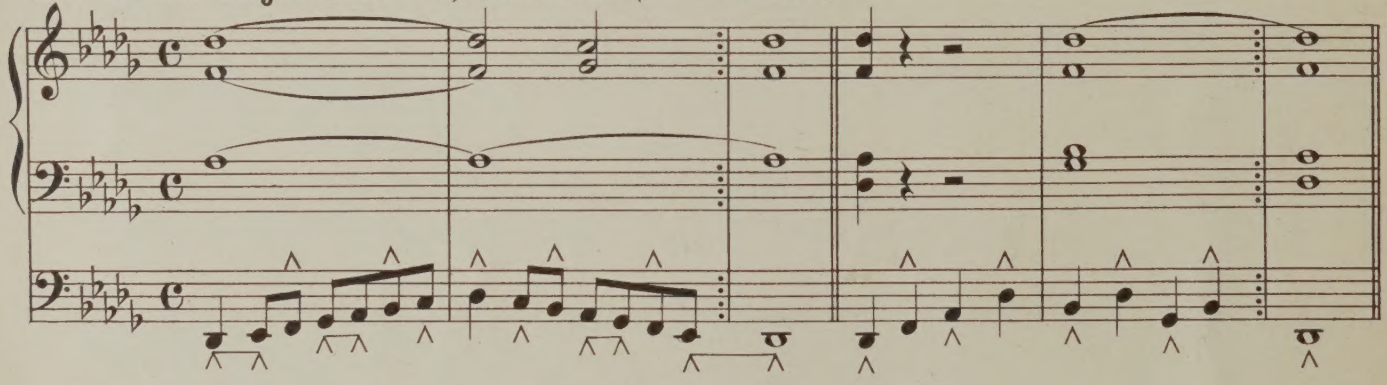
21. A flat major As-dur



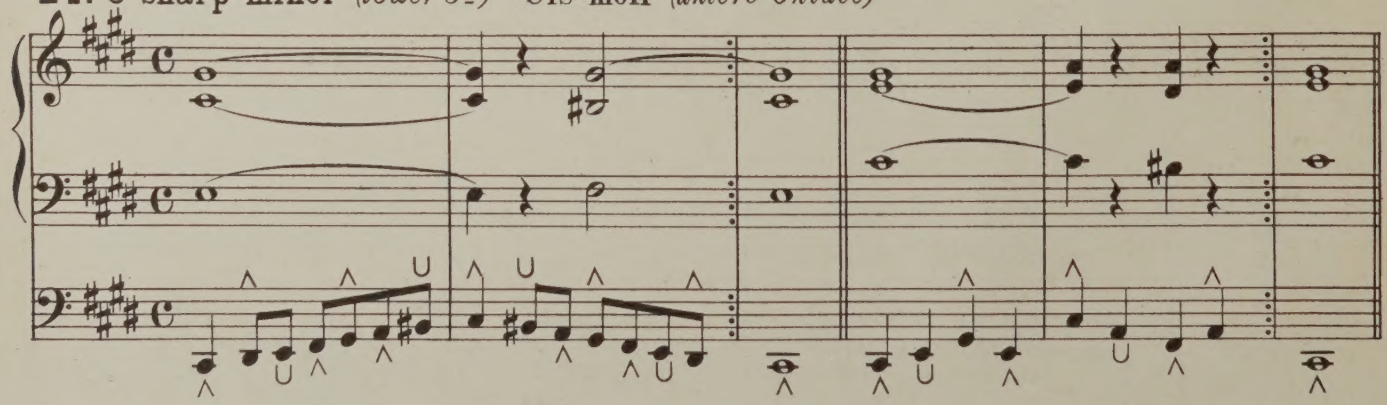
22. G sharp minor Gis-moll



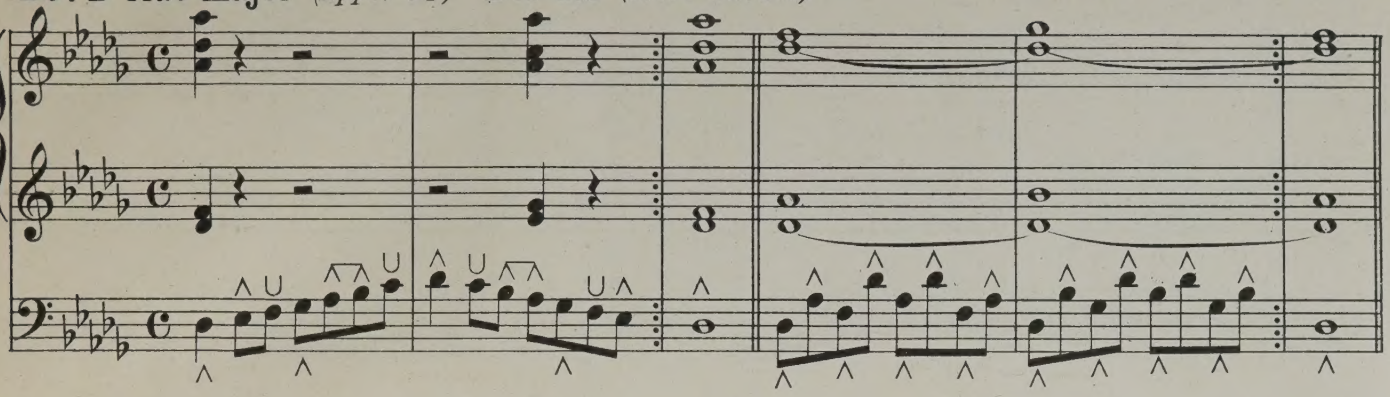
23. D flat major *(lower 8ve)* Des-dur *(untere Oktave)*



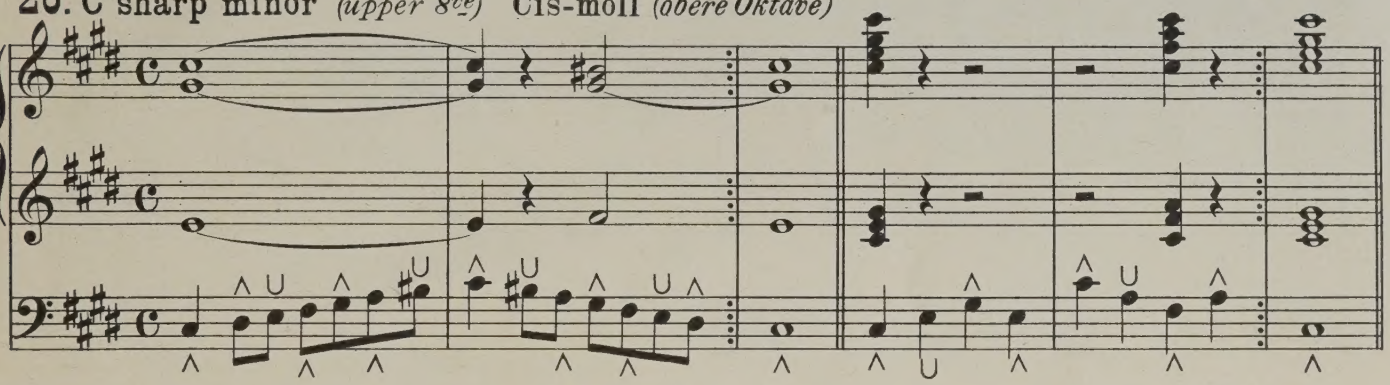
24. C sharp minor *(lower 8ve)* Cis-moll *(untere Oktave)*



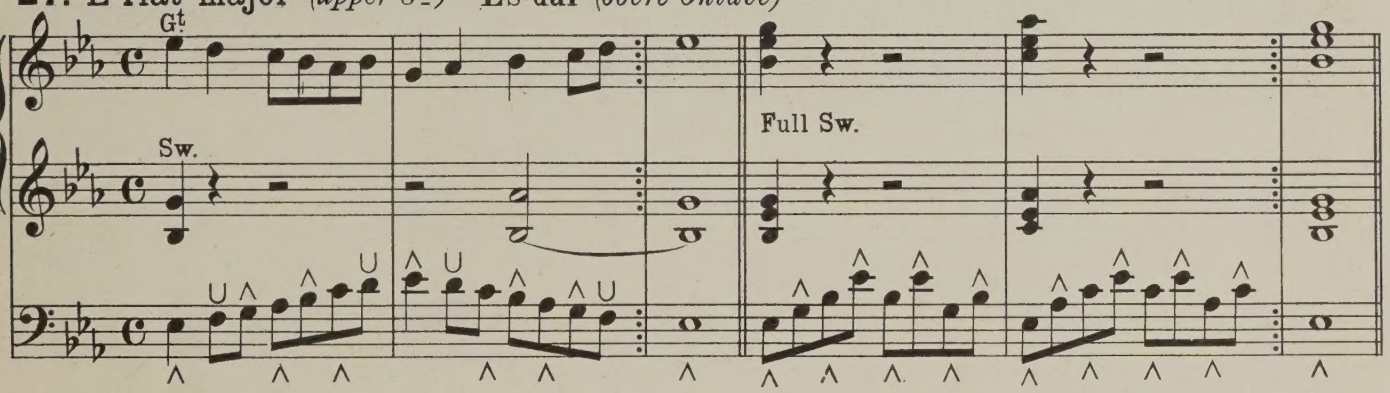
25. D flat major *(upper 8ve)* Des-dur *(obere Oktave)*



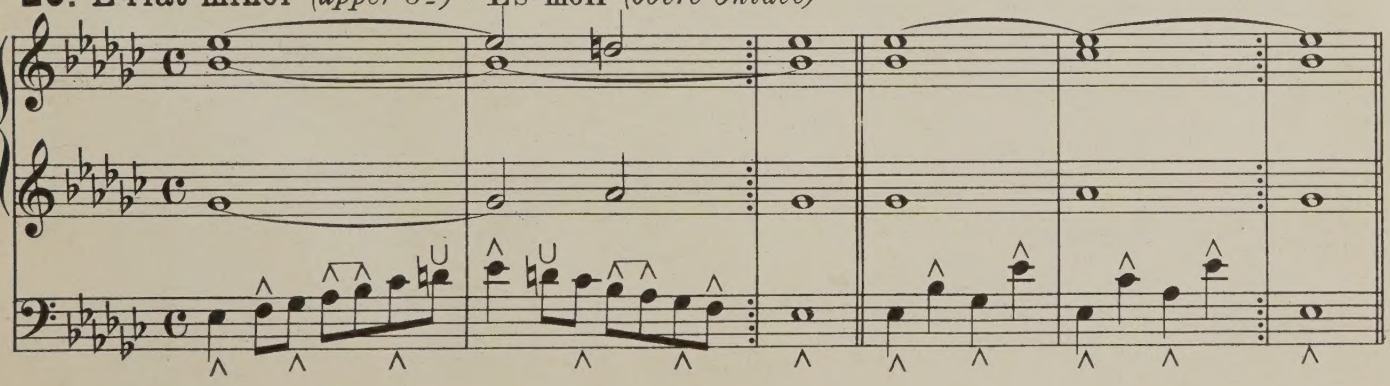
26. C sharp minor *(upper 8ve)* Cis-moll *(obere Oktave)*



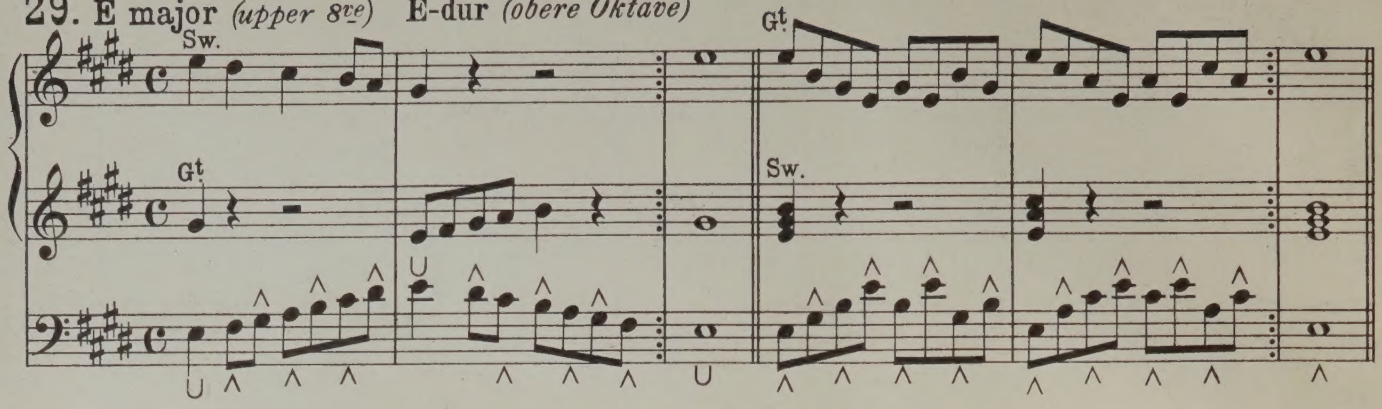
27. E flat major *(upper 8ve)* Es-dur *(obere Oktave)*



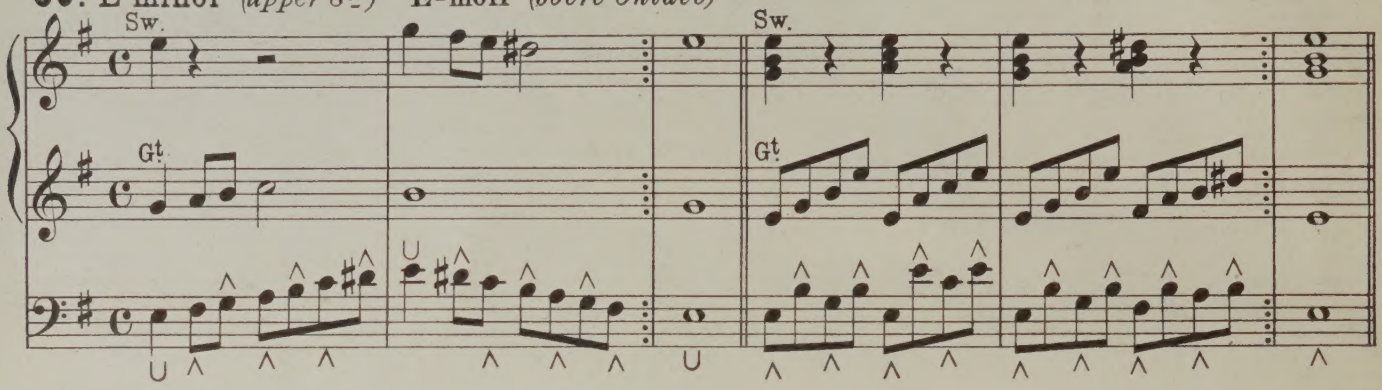
28. E flat minor *(upper 8ve)* Es-moll *(obere Oktave)*



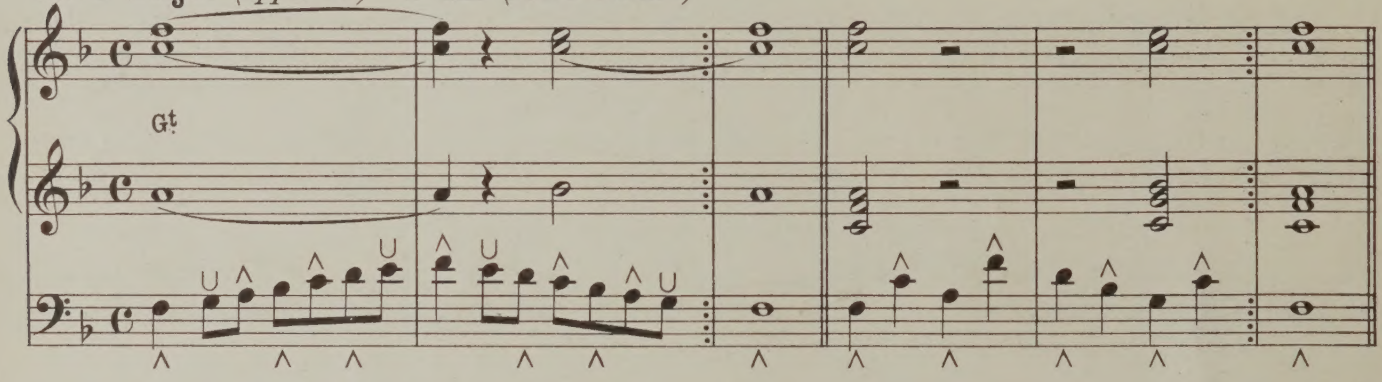
29. E major *(upper 8ve)* E-dur *(obere Oktave)*



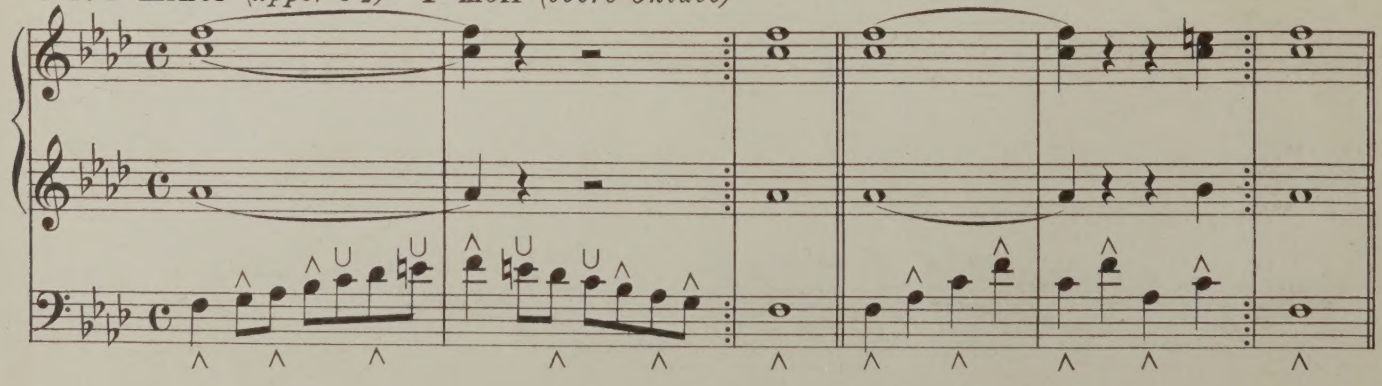
30. E minor *(upper 8ve)* E-moll *(obere Oktave)*



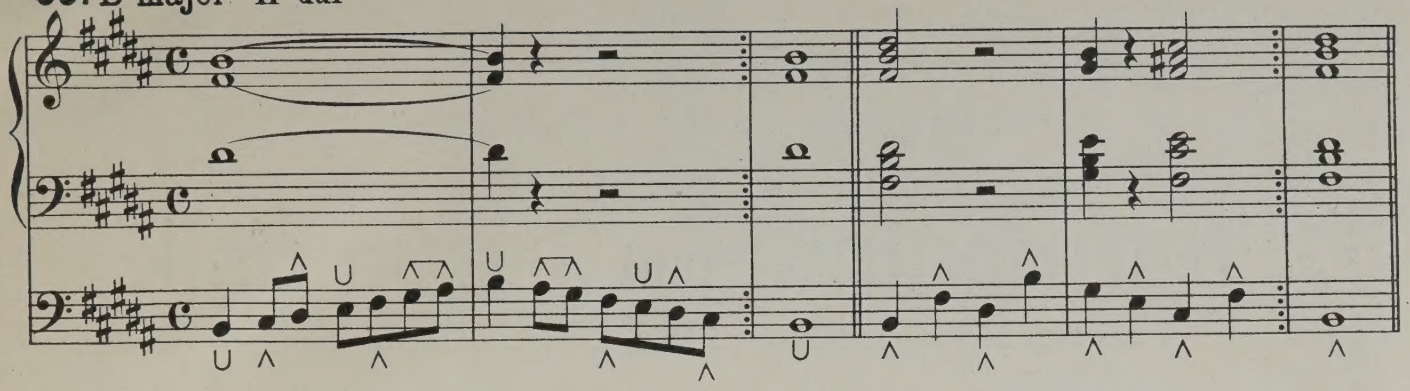
31. F major *(upper 8ve)* F-dur *(obere Oktave)*



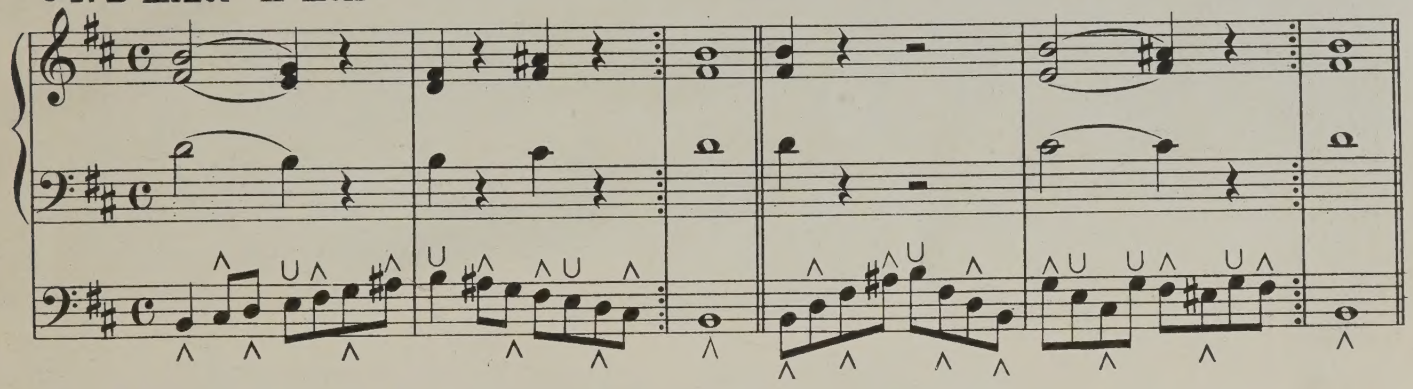
32. F minor *(upper 8ve)* F-moll *(obere Oktave)*



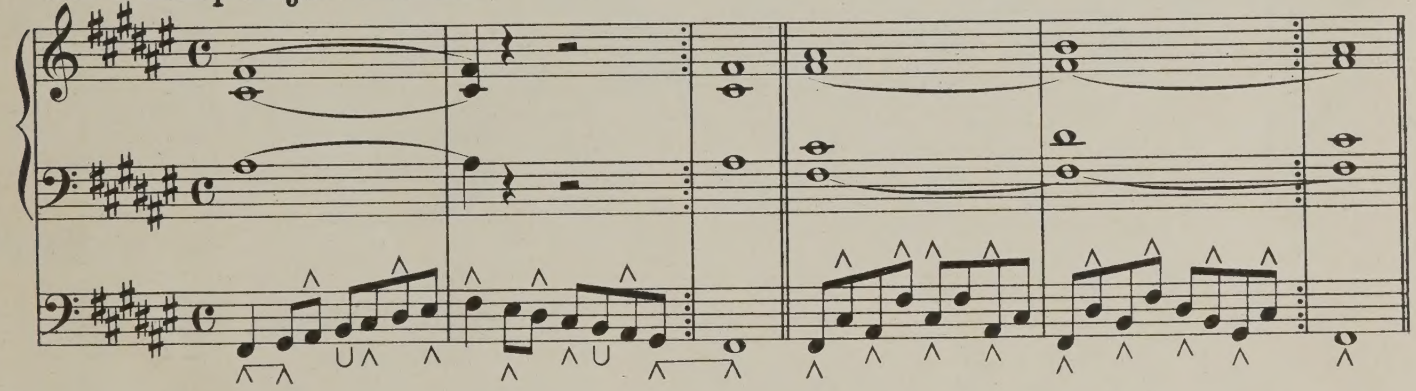
33. B major H-dur



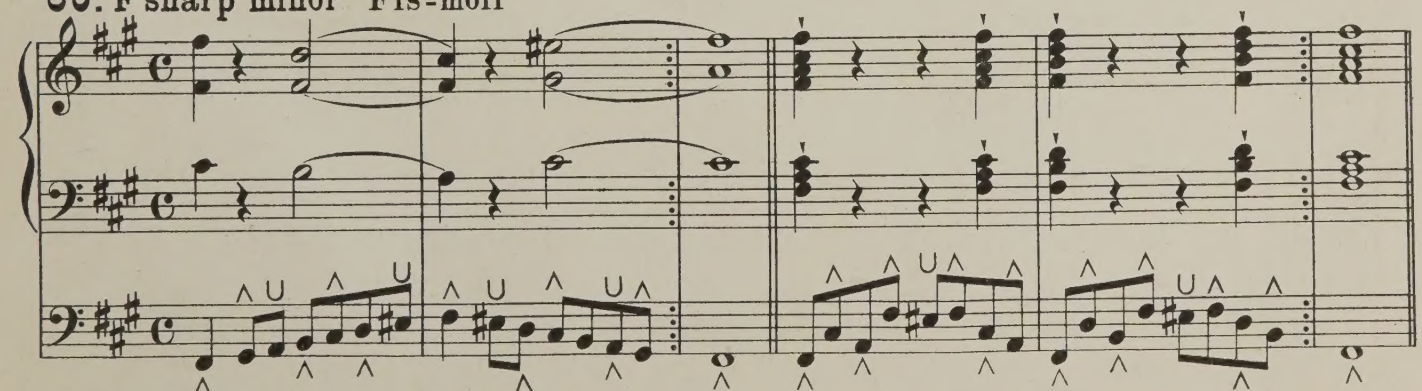
34. B minor H-moll



35. F sharp major Fis-dur



36. F sharp minor Fis-moll



BOSWORTH EDITION.

Harmonium- und Orgelmusik

Harmonium- and Organmusic

Transcriptionen und Originalcompositionen bekannter Componisten.

Transcriptions and Original-Compositions of popular Composers.

Harmonium solo.

Stapf, Ernst, Melodien-Album (Album of Melodies):
Heft 1. Kreutzer: Tag des Herrn, Abendgebet, Nachtlager zu Granada — Beethoven: Gottes Güte, Liebe des Nächsten — Mendelssohn: Es ist bestimmt in Gottes Rath — Pilgerspruch.
Heft 2. Mozart's Zauberflöte: Chor der Priester, Priestermarsch, Arie des Sarastro — Mendelssohn: Entsagung — Kuhlau: Unter allen Wipfeln — Kreutzer: Kapelle — Kücken: Herzenswünsche.
Heft 3: Beethoven: Ehre Gottes — Kreutzer: Nachtlager zu Granada, Maur. Romanze — Lindpaintner: Schreiner — Preyer: Am Allerseelentage — Kreutzer Quartett: Abendfeier — Mendelssohn: O säh' ich auf der Haide dort.
Heft 4. C. M. v. Weber: Frühlingslied, Schöne Ahnung ist erglommen — Mendelssohn: Abschied vom Walde — Mozart, Zauberflöte-Terzett: Bald prangt der Morgen — Spohr, Faust: Cavatine: „Dürft ich mich nennen sein eigen" — Meyerbeer: Gebet a. d. Nordstern — Barcarole.
Heft 5 Cavatine von Rossini: Stabat mater — Hymne aus Flotow's Stradella — Lied von Schmidt: In die Ferne — Duett aus Mozart's Zauberflöte — Romanze aus Méhul's Joseph — Kücken: Ach wenn du wärst mein eigen.
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Heft 7. Mozart: Ave verum corpus — Mendelssohn: Frühlingsfeier — Auber: Stumme, Schlummer-Arie — Mendelssohn: Paulus, Arioso — Kreutzer: Der Wirthin Töchterlein — Beethoven: Egmont, Freudvoll und leidvoll.
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PREFACE.

There can be no doubt, that in acquiring a correct and systematic mode of using the Pedals in Organ playing, there are many difficulties, and these are much increased in consequence of almost every Organ player and composer of eminence, employing, in the management of the Pedals, a method in some respects, peculiar to himself. The inexperienced Student is therefore often perplexed by the different Methods, and unable fully to satisfy himself as to the peculiar merits of each.

To be convinced of this, it will only be necessary to compare the works of Hering, Hesse, Knecht, Rinck, Werner, &c. respecting the management of the Pedals.

Without wishing to depreciate these instruction books (which are in many respects admirable, and the Student may derive great benefit by making himself familiar with the opinions of the different writers) — I am, however, induced to offer to young Organists, and all those who desire information respecting this very important part of Organ playing, the results of my own experience, believing, that they will conduce to the rapid improvement of the Student, and save him much time and trouble.

In this Method I have studied the utmost possible brevity, and have therefore only given such examples, as were strictly necessary, which the Student himself can, if requisite, easily multiply; and it is my great desire, that I may thus be able to contribute somewhat towards an accomplished performance on the Organ, which, on account of the vigour, fulness, and variety of its tones, is with truth called the King of Instruments.

THE AUTHOR.

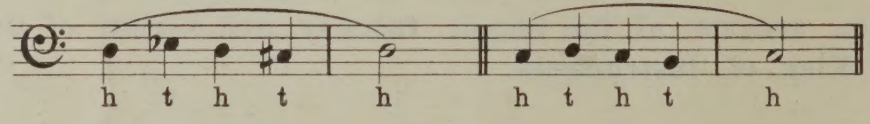
ON PEDAL PLAYING.

The player must be seated on the middle of the Organ bench, exactly opposite to the centre of the Manuals and the Pedals, in an easy and erect position, so that he can conveniently reach the lowest C with his left foot, and the highest c with the right foot. In all passages that occur in Organ pieces, he must endeavour as much as possible, to preserve this position, and not, as many Organ players do, move to both sides, in a manner not only inconvenient and fatiguing to the performer, but at the same time disagreeable and ridiculous to the spectator. In all the Exercises given in this Instruction book, he will be able easily to avoid this fault.

In the alternate use of the feet (called the Natural Method) the toe or point of the foot is required to be pressed down gently, in order to avoid that unpleasant rattle of the Pedal Keys which otherwise occurs more or less in all Organs.

In alternately using the toe (t) and the heel (h) of each foot for putting down several Pedal Keys near to each other (called the Artificial Method), the same easy pressure must be employed. — The performer will find it very convenient to have the heels of his shoes a little higher than usual.

Although when one of the Upper Pedal Keys follows one of the Lower ones, it is pressed down with the Toe; and when one of the Lower Pedal Keys is followed by another of the Lower row, this is pressed down with the fore-part of the foot,



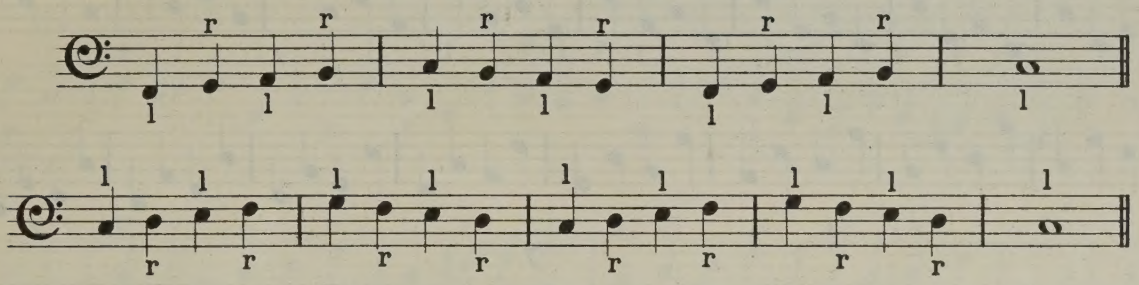
we shall, for the sake of brevity, indicate them both by the same marks.

The combination of both the preceding Methods of using the Pedals (called the Mixed Method), I consider to be the easiest and surest way of learning to play skilfully and smoothly.

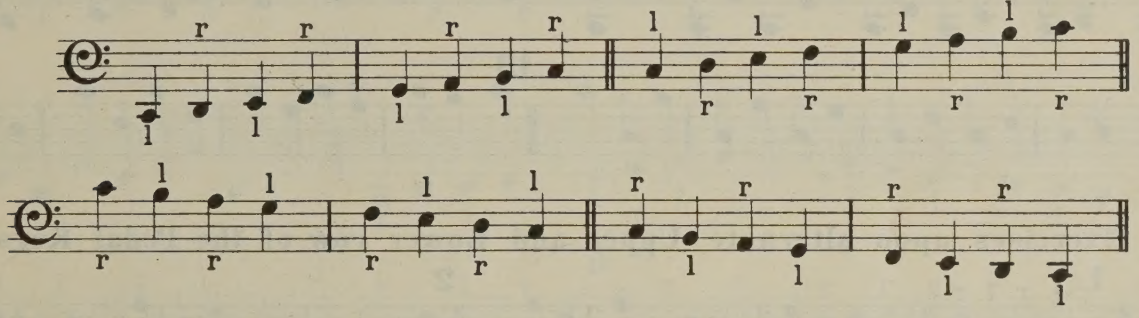
I shall first explain some exercises in the Natural, and then in the Artificial Method, in order to make the Pupil familiar with both species; but in general I consider the Mixed Method as the best and most practicable to make use of.

1. NATURAL METHOD.

As the first exercise in this method, and indeed in Pedal playing generally, the following examples must be practiced:



wherein, as a rule, I request the student to observe: that in ascending passages in the lower octave, the left foot must be passed under, and in the upper octave over the right. And on the contrary, in descending passages in the upper octave the right foot must be passed under, and in the lower octave over the left foot: for example,

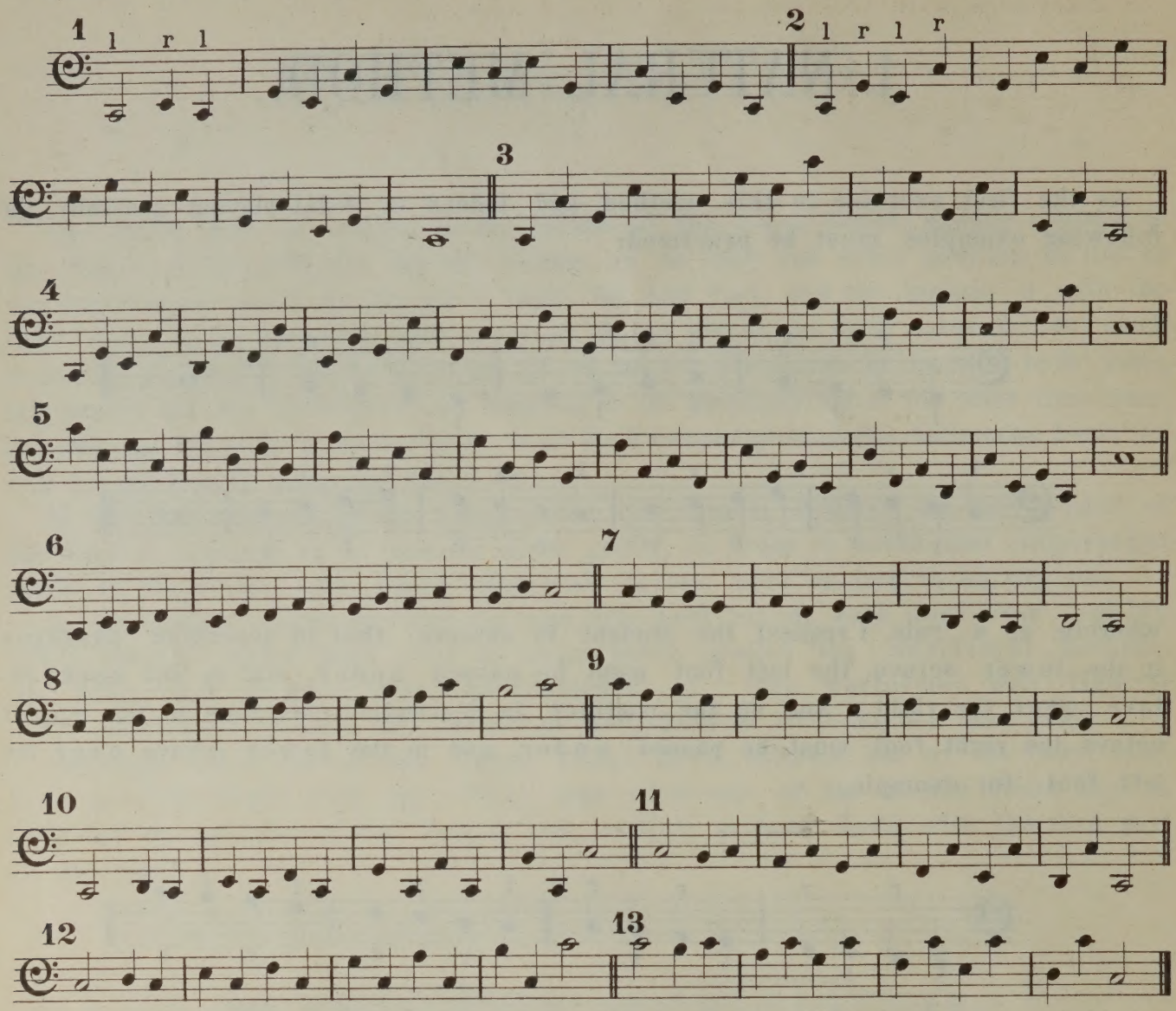


It must, at the same time, be observed in these exercises, that when the left foot (l) occurs after the right (r), and the l is placed above the stave it must be passed over the right foot; and when the l is placed below the stave it must be crossed under the right foot. — The farther application of this rule to the subsequent exercises is sufficiently obvious.

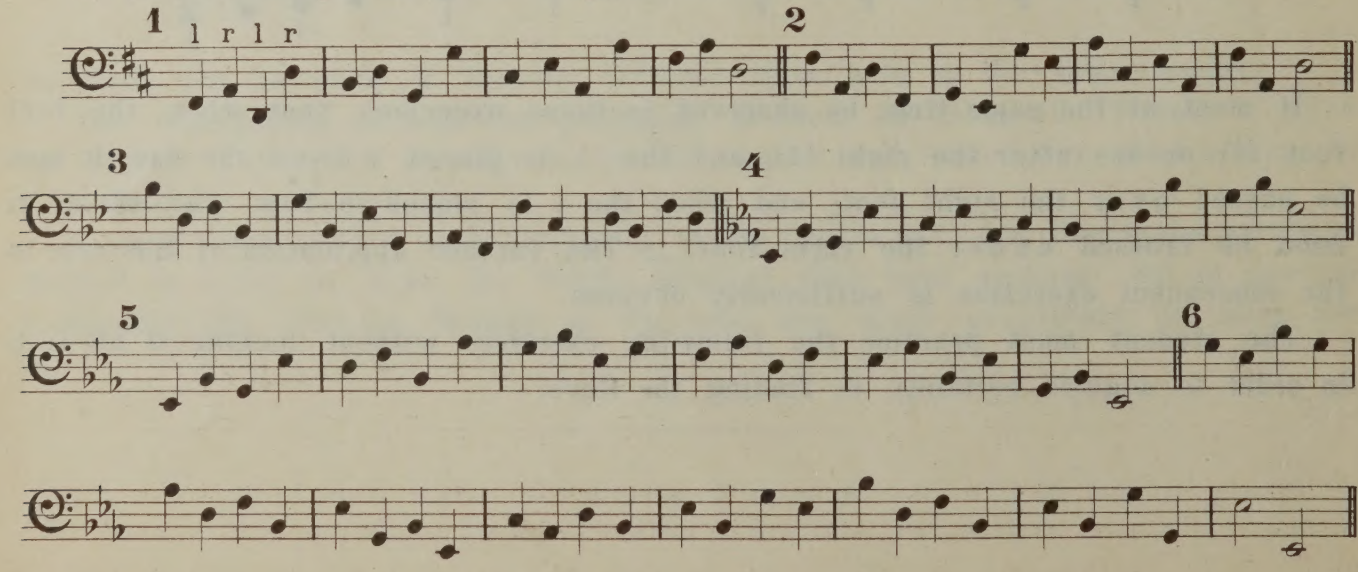
The student must practice the following exercises without looking at his feet, in order to acquire certainty in finding the Keys.

S C M P Co 1167

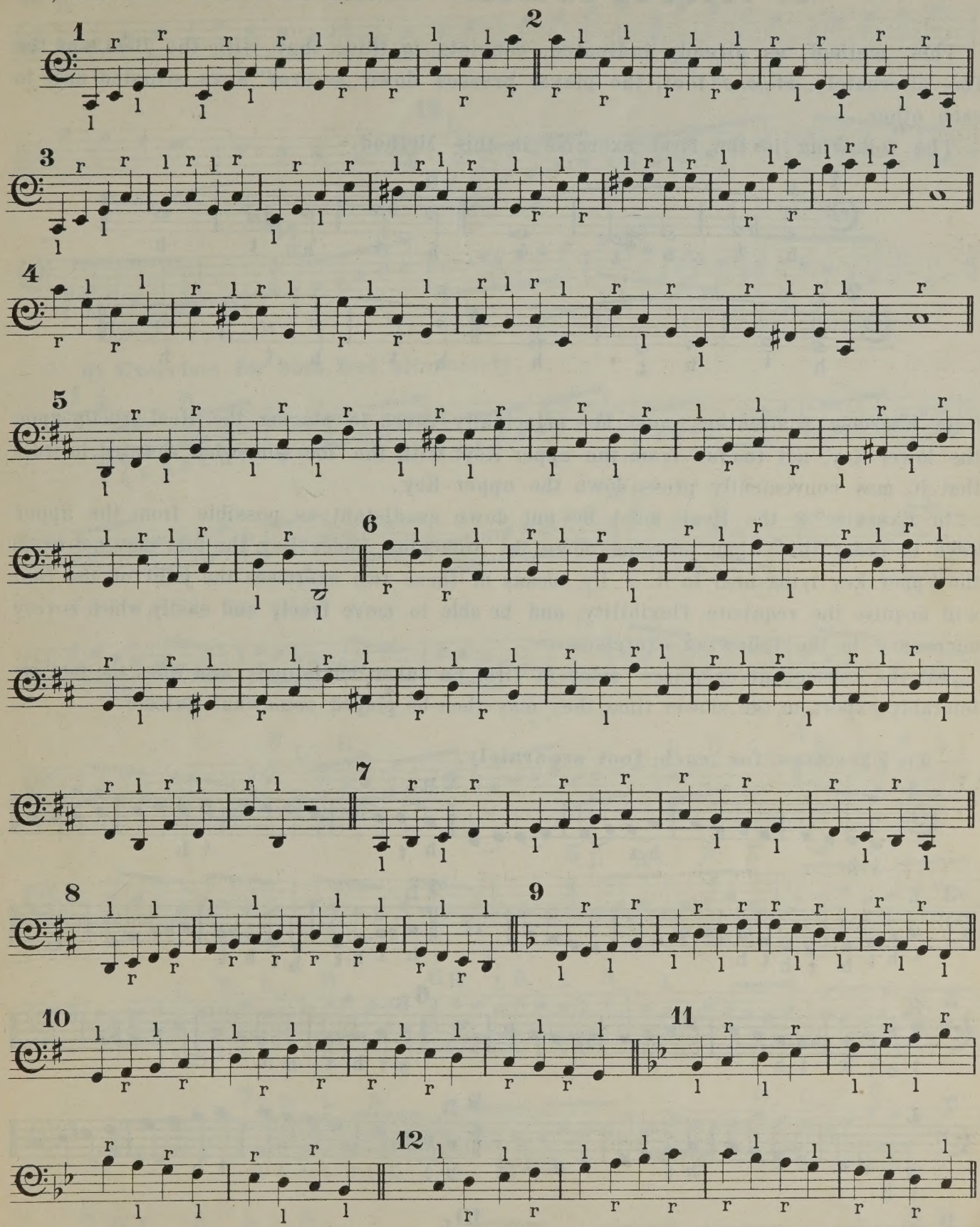
a) Exercises merely upon the Lower row of the Pedal Keys, without crossing the feet.



b) Exercises upon alternate Upper and Lower row of the Pedal Keys.



c) Exercises with crossing the feet under and over.

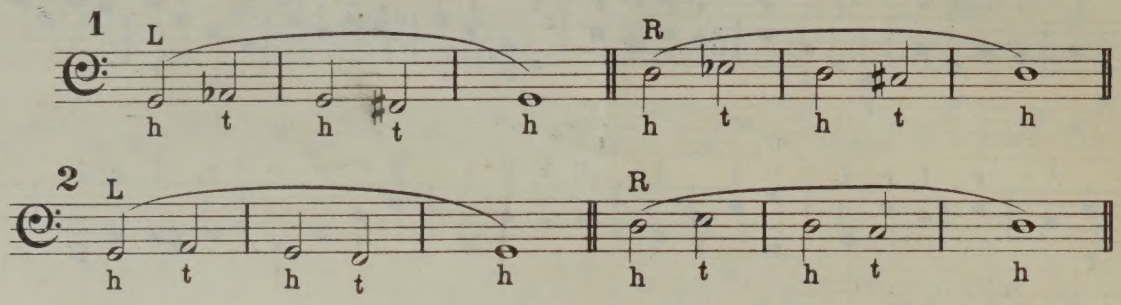


When the student has attained some certainty and facility in this Method, he may proceed to the exercises on the Artificial Method, which certainly present some difficulties in the performance, but only such as may, with perseverance, be easily overcome.

2. ARTIFICIAL METHOD.

This method, as already indicated, consists in this: that with the Heel, and the Toe, alternately, of *„one“* foot, the player presses down *„several“* Keys situated near to each other.

The following is the first exercise in this Method:

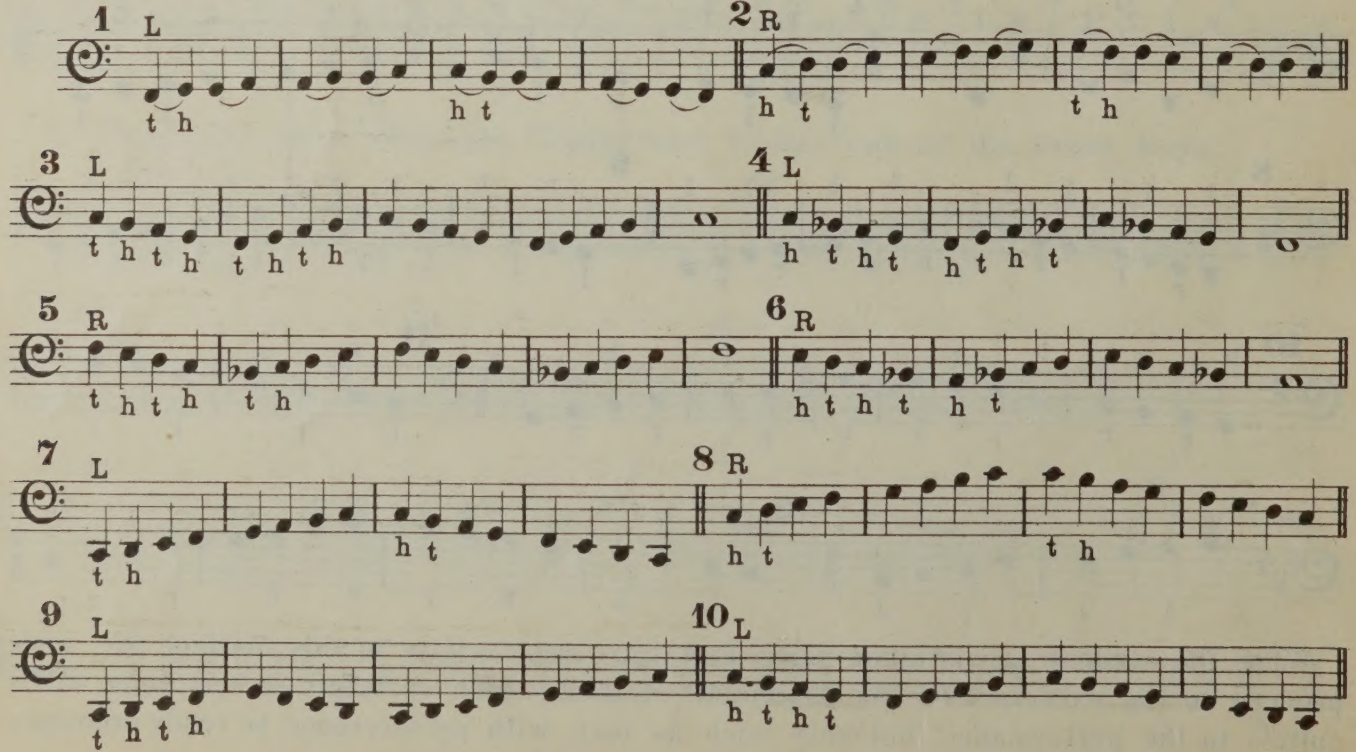


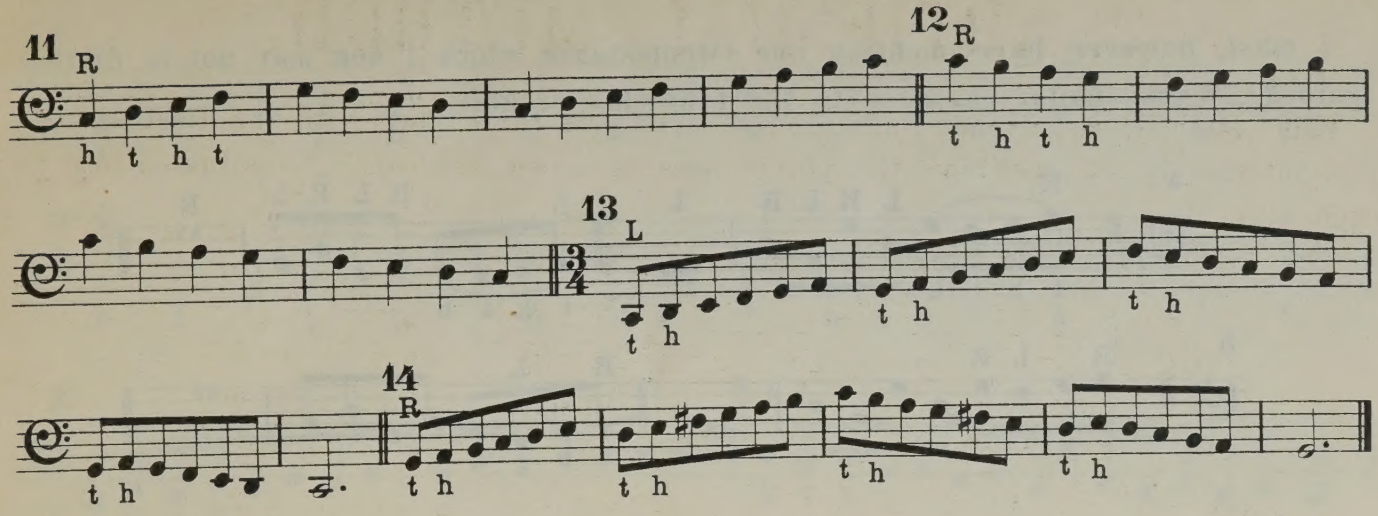
In Exercise 1 attention must be principally given to placing the Heel exactly upon the lower Key, not too far from the upper Key, with the Toe somewhat elevated, in order that it may conveniently press down the upper Key.

In Exercise 2 the Heel must be put down as distant as possible from the upper Keys, in order that when pressing down the following Under-key, the foot may not touch the Upper-key lying near to it. — By means of these two exercises the joint of the foot will acquire the requisite flexibility, and be able to move freely and easily, which is very necessary in the following exercises.

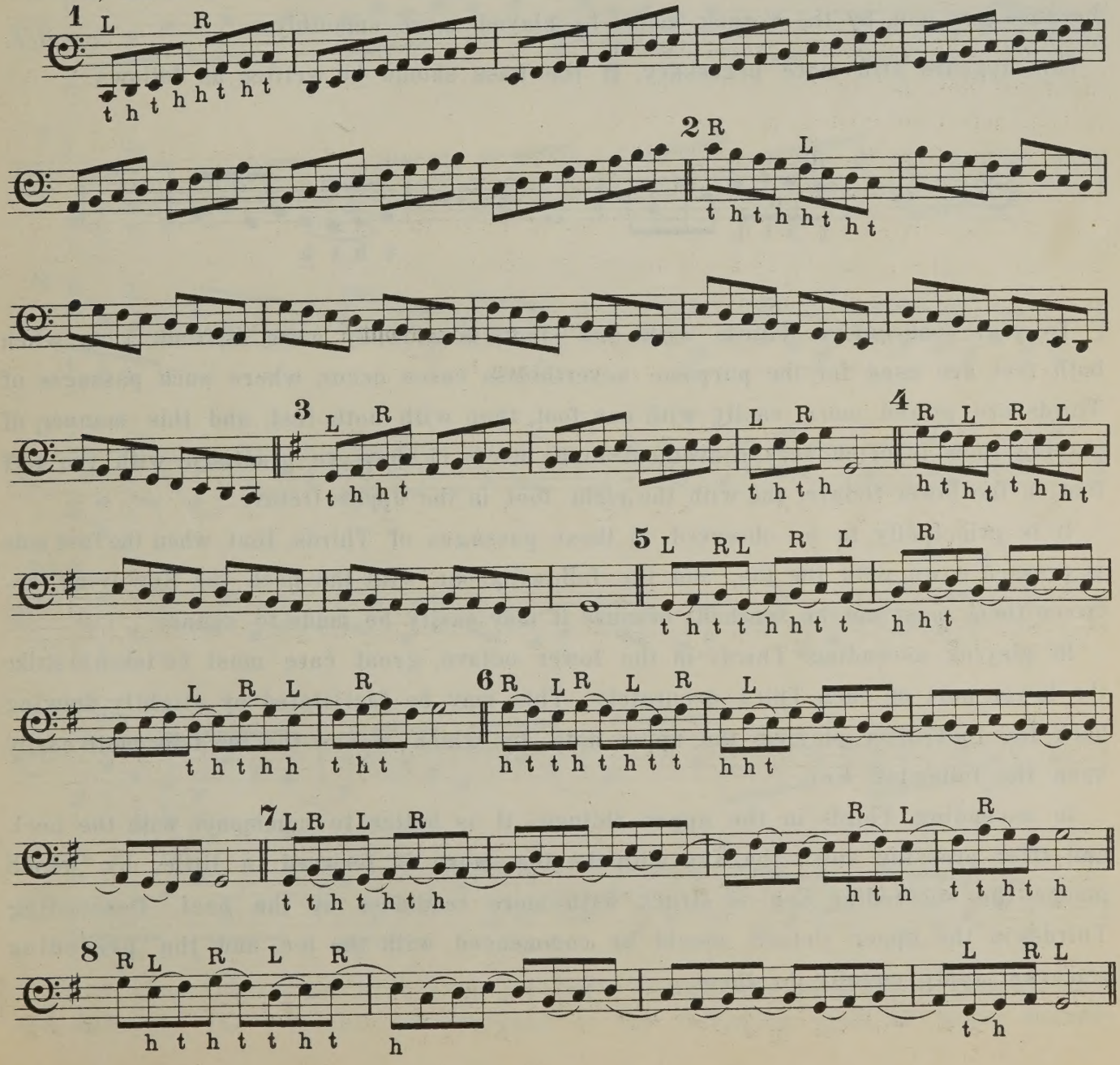
All the subsequent exercises must at first be taken but slowly, and when the feet are tolerably expert in the slower time, they may then be played somewhat quicker.

a) **Exercises for each foot separately.**

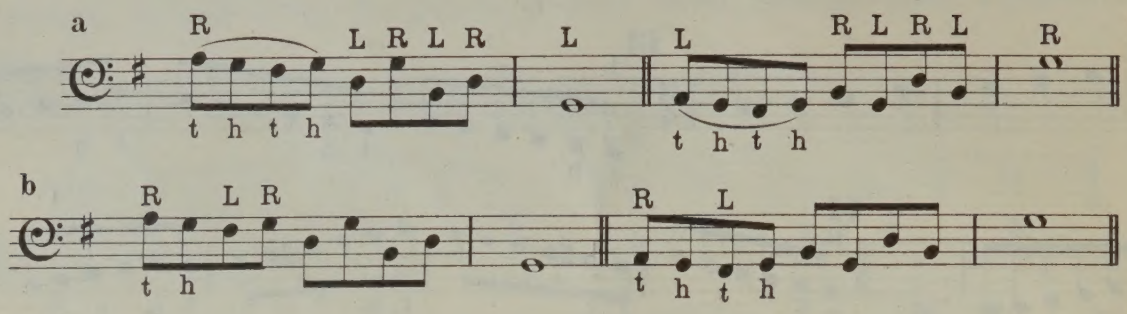




b) Exercises for both feet alternately.

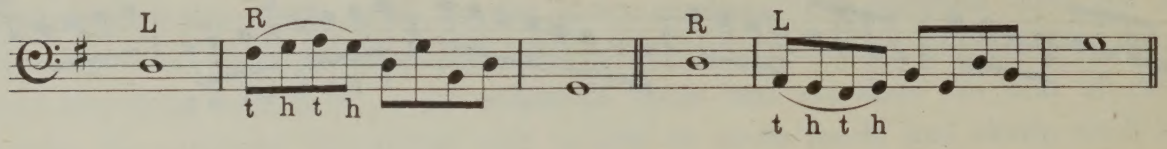


I must, however, here mention one circumstance, which I beg may not be disregarded.— When similar passages to the following occur:



they are better when played with one foot as at a, than with the two feet as at b, because they can, by the former mode, be played more smoothly.

This appears still more necessary, if the Bass should be written as follows:

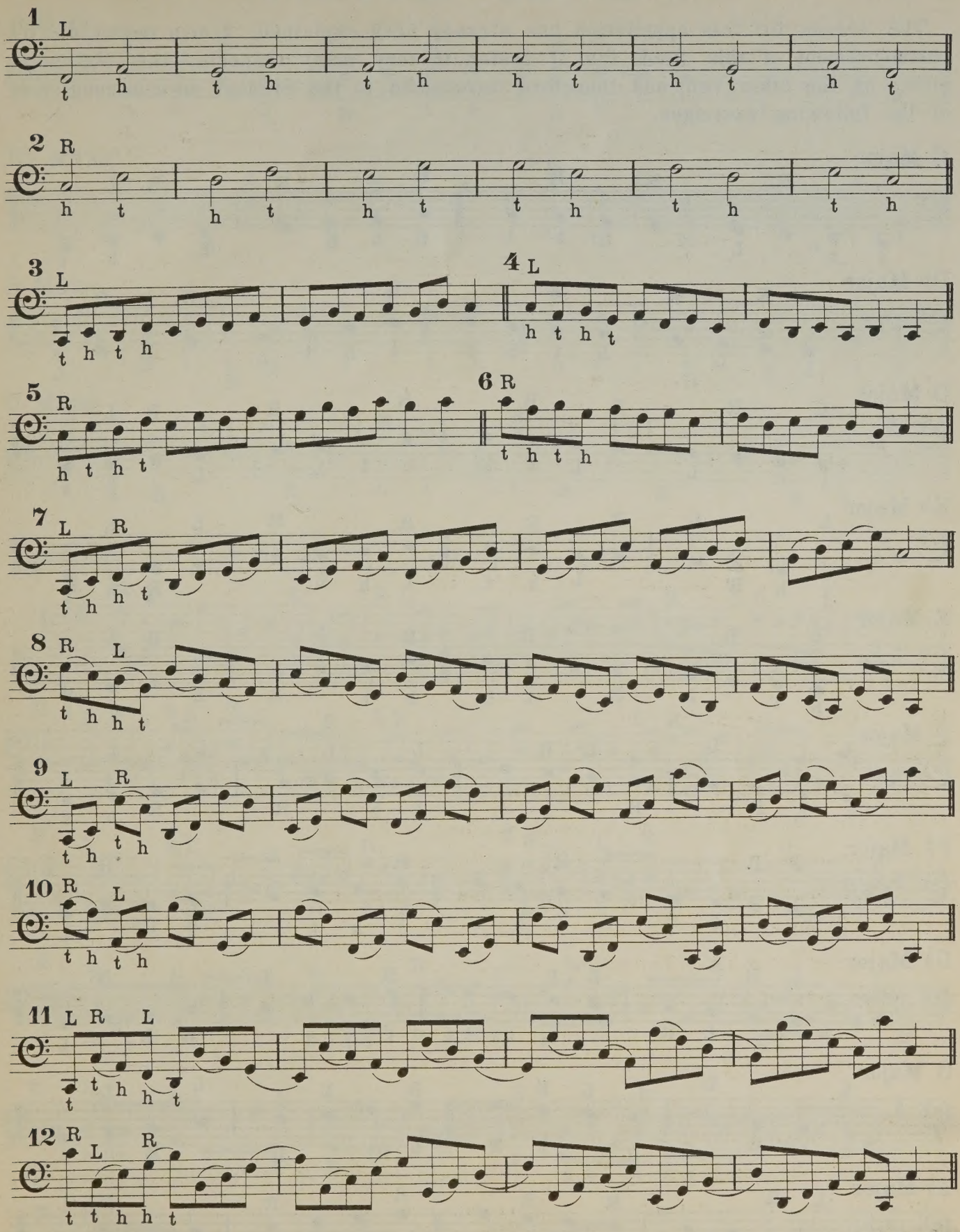


To play consecutive Thirds with *„one“* foot, is certainly more difficult, than when both feet are used for the purpose; nevertheless cases occur, where such passages of Thirds are played more easily with one foot, than with both feet, and this manner of playing them is often very convenient to be used, if they are practised with the left foot in the lower Octave, and with the right foot in the upper Octave.

It is principally to be observed in these passages of Thirds, that when the first note is pressed down with the toe, and the following one with the heel, the Key lying between them must not be touched, because it may easily be made to sound.

In playing ascending Thirds in the lower octave, great care must be taken to strike the lower note of each Third accurately. This may be facilitated by slightly drawing back the foot after playing the upper note, by which means the toe falls more easily upon the following Key.

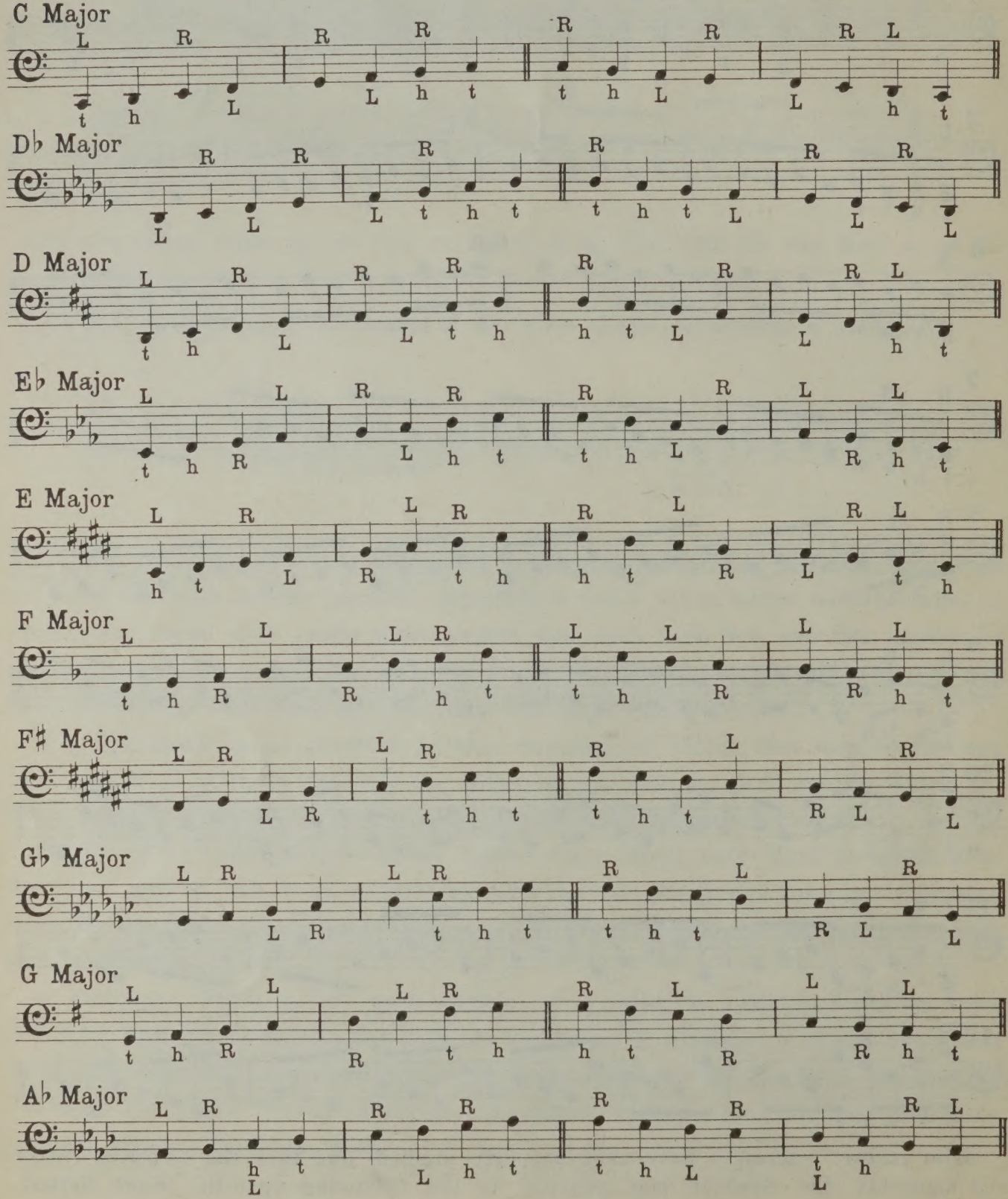
In ascending Thirds in the upper Octave, it is better to commence with the heel, and after pressing down the Key with the toe, move it forward a little, by which means the succeeding Key is struck with more readiness by the heel. Descending Thirds in the upper Octave should be commenced with the toe, and the preceding remarks apply equally to them.



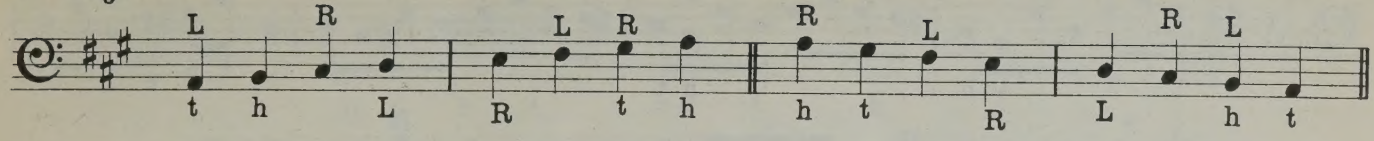
After *„these“* exercises have been properly studied, and they can be played readily and smoothly, the Student may proceed to the following upon the Mixed Method.

3. MIXED METHOD.

The reason for this appellation has already been explained. I also remarked at the commencement of this Book that I prefer, in very many respects, this Method to either of the other two, and therefore recommend to the Student an assiduous study of the following exercises.



A Major



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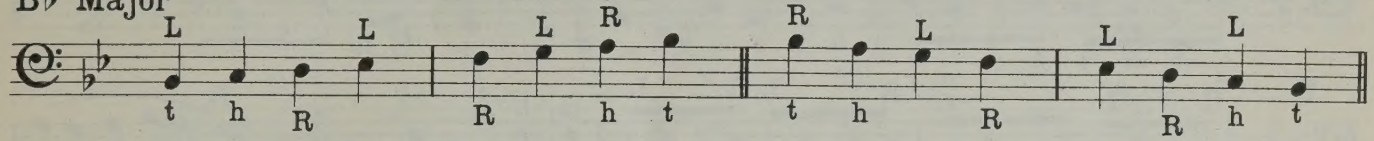

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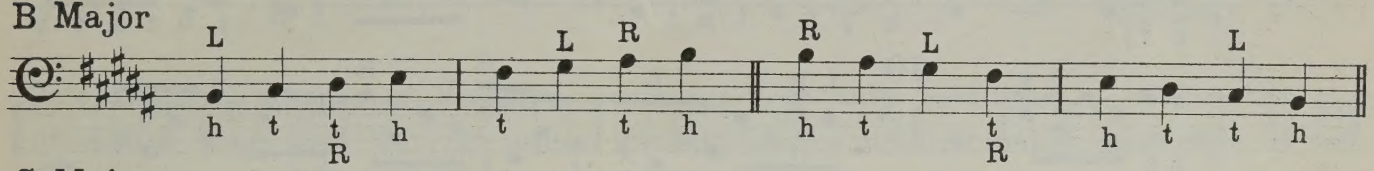

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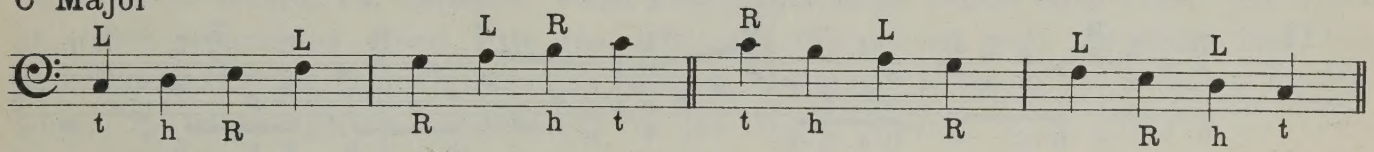
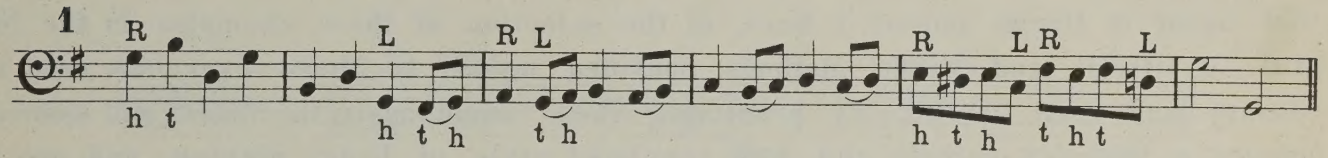
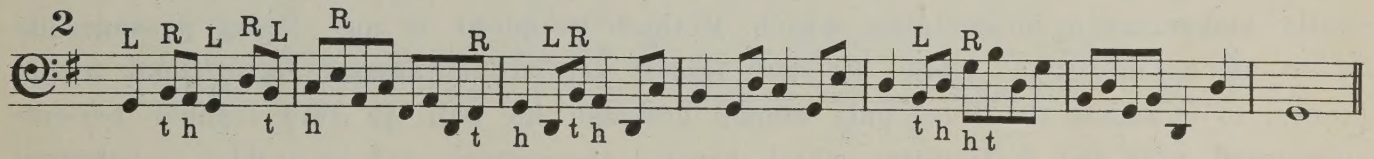
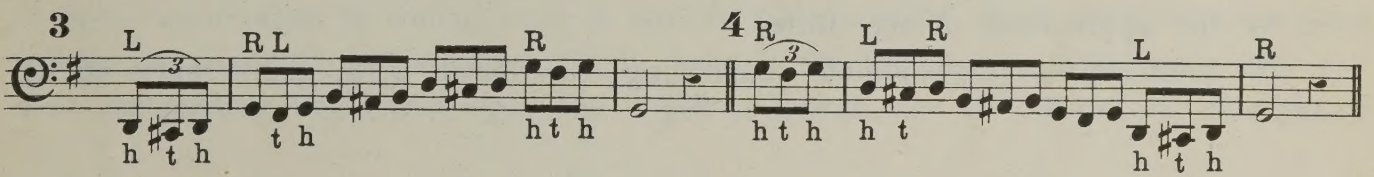
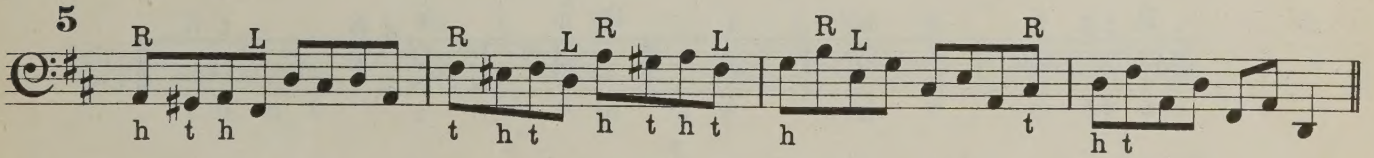
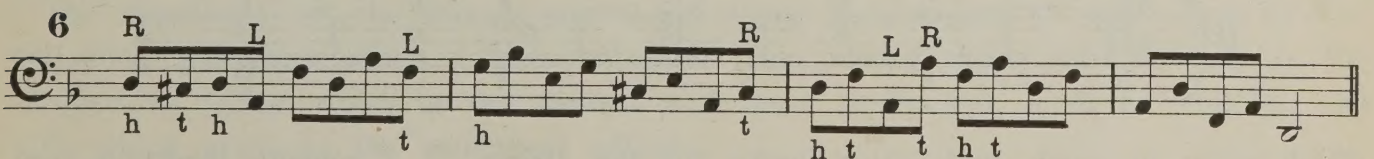


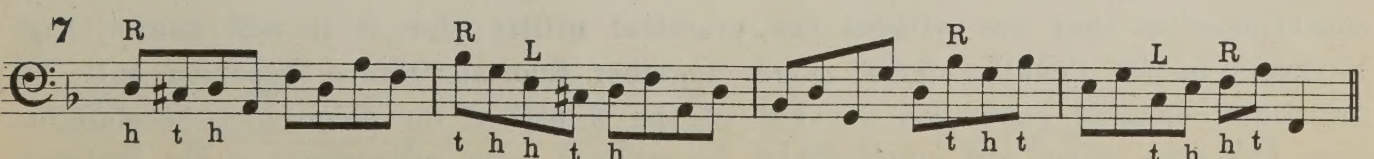


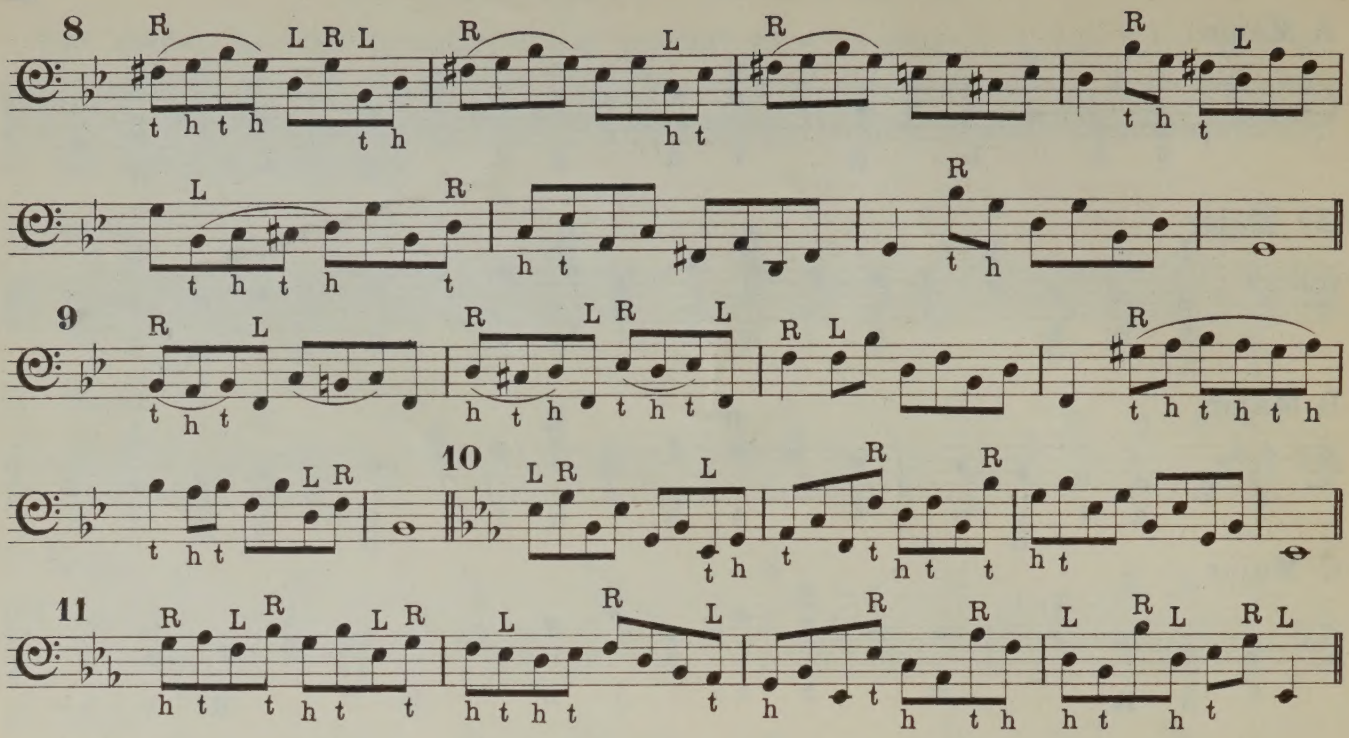






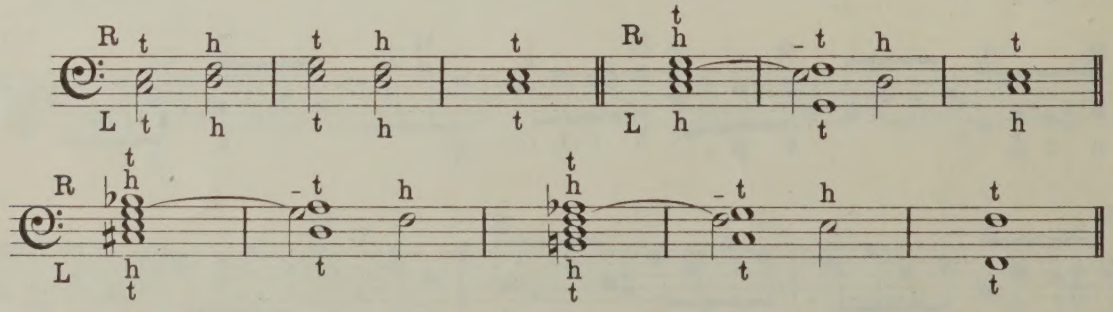






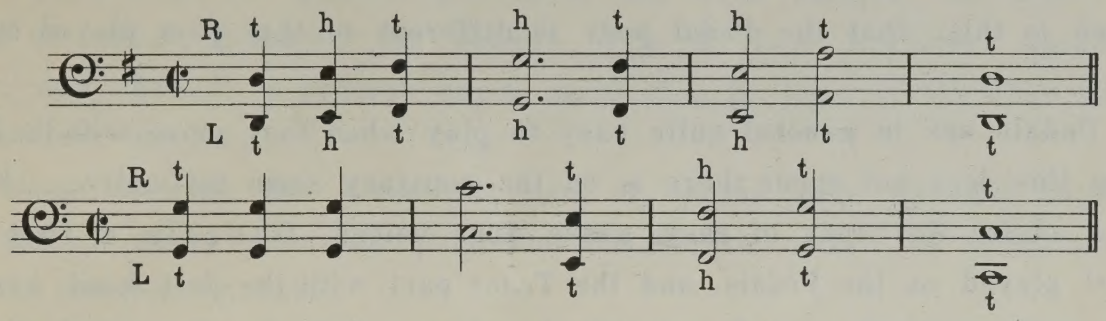
As it would be superfluous, were it possible, to indicate all the Pedal passages that occur in Organ music, I have, in the selection of these examples in the Natural, Artificial, and Mixed Methods, confined myself to those exercises most necessary and most useful. By practising these assiduously, the Student will assuredly acquire a tolerably certain and well regulated style of Pedal playing, and not be easily embarrassed in deciding, which Method to adopt in any Pedal passages likely to occur in Organ Music. He will find it very advantageous, in difficult Organ pieces, to examine the Bass part alone, because he will, in this manner become acquainted with the difficulties which present themselves, and be enabled to surmount them by the application of the Rules.

I will here express my opinion respecting Chords in **2**, **3**, and **4** parts on the Pedals,

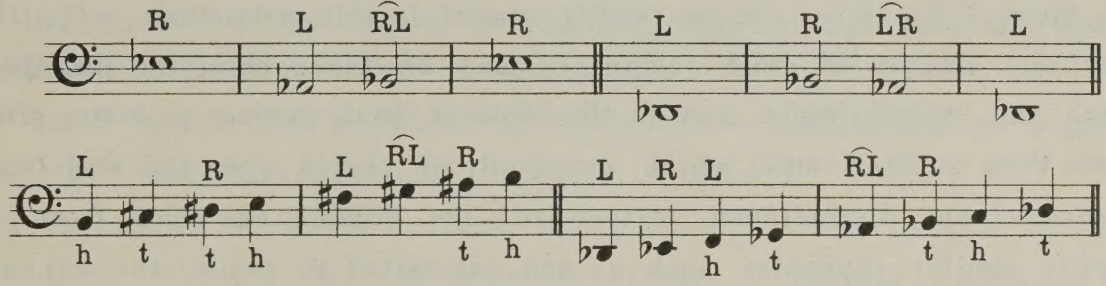


which occur in most Instruction books for the Organ. — I consider them to be very superfluous, as they are without any practical utility; for, it is well known, that Intervals in the Pedals, placed nearer together than an Octave, occasion only an indistinct buzzing sound, on account of the depth of the tone; and therefore Octave passages alone are practicable, for giving more prominence to the entrance

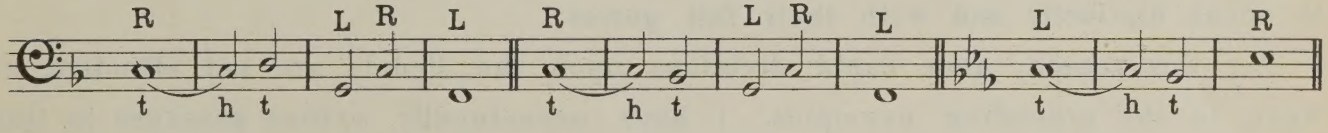
of a Bass part, and for strengthening various Chords, particularly a concluding one, or an Organ point: for example,



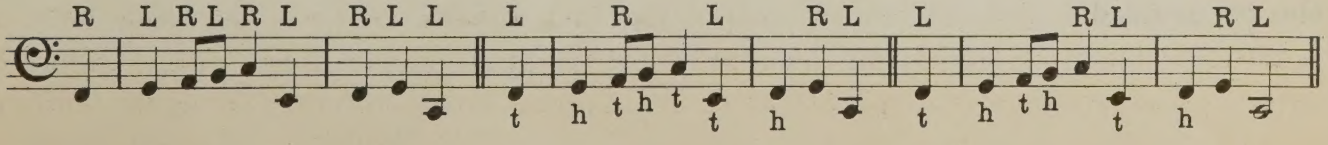
A particular manner of pressing down one Key with both feet, one after the other, (changing one foot for the other, without repeating the note), must now be mentioned. It occurs, for instance, when two Upper Keys follow each other, the first of which is pressed down with the left, and the second with the right foot, but here the left foot immediately, and without causing the least interruption to the sound, is imperceptibly substituted for the right, leaving it at liberty to take the next Key. In a precisely similar manner the right foot may be substituted for the left: for example,



Cases occur also, in which, after a Key is first pressed down with the toe, the heel is then imperceptibly substituted for it, leaving the toe at liberty to press down the next succeeding Key either upon the Upper or Lower row of Pedals; for example,



The superiority of the Mixed over the Natural Method may be understood by the following passages, which I have selected from among many others, to enable the Student to judge, which is the easiest and most convenient mode of playing, and also which produces the smoothest effect:



In Obbligato Pedal playing, the greatest difficulty at the commencement, is comprised in this, that the Pedal part is different to that part played by the left hand.

The Pedals are in general quite easy to play when they move with the left hand, but when this does not occur there is on the contrary some difficulty. — For this reason I advise the study of easy, grave, four-voiced Choräle; at first with the Bass part played on the Pedals, and the Tenor part with the left hand simultaneously, until some degree of certainty has been attained; after which the entire Choral may be played, the two highest parts (the Treble and Alto) being taken by the right hand, the Tenor part by the left hand, the Bass part being played on the Pedals only.

The good effect produced in a Church by a Choral thus played, may be easily ascertained, when in this manner, by means of the 16 feet stops contained in the Pedals, the Bass sounds an Octave deeper than it is written, and is displayed in its full vigour and power, at the same time very much supporting the upper parts.

When these Choräle can be readily played in this particular way, then the Fughettas and Fugues of good composers may be taken, observing, that those which are written the most simply, and in the slowest time, produce a better effect upon the Organ, than quicker ones, which, especially if played upon the Full Organ, loose their clearness and distinctness. Afterwards the Student can select from pieces of a somewhat similar character, such as are calculated to assist the execution as much as possible, at the same time bearing in mind the greater or less degree of echo of the building in which they are to be played.

Fugues, and such like Organ pieces, should never be played too fast, because the deep, and especially the 32 feet pipes in the Pedals, require sufficient time to speak distinctly and with their full power.

For this reason, also, rapid divisions upon the Pedals are not effective, and when, in the preceding examples, I have occasionally written passages in Quavers, it is because, in the first place, thy are thus read more easily; and, secondly, because it is very useful for the performer to understand, that however they may be written, they are never to be played too quickly.

Passages of Semiquavers, and Demisemiquavers; or Ornaments, Appoggiaturas, and Shakes, are not suitable for the Pedals, and must, therefore, as much as possible, be avoided.

When, however, the Pedal part is played on a 4 feet stop, — as in many pieces by Bach, — quicker passages, and even shakes, do not produce so bad an effect, because the sounds of a 4 feet Register speak more quickly, and the ear perceives them more clearly than is the case with those of a 16 feet Register.

All these remarks and directions are, of course, only intended for the young Organ player: every educated performer is able to make use of his own experience in the best manner.

In the concluding part I have given several Organ compositions, to which I have added directions for the Method of playing the Pedal part, in order that the inexperienced Student may perceive, how he can facilitate the performance of similar pieces, especially such as have an Obbligato Pedal part.

I will not positively assert, that for these pieces the Method I have marked is the only correct one, and that there are not others quite as good of their kind; but I have found that in this manner the Pedal part can be played tolerably smooth, without it being necessary for the performer to change his seat in the middle of the Organ bench, and thereby endanger the certainty of his execution.

How much indeed the firmness of his position, contributes to a good performance, the Student will himself discover in playing.

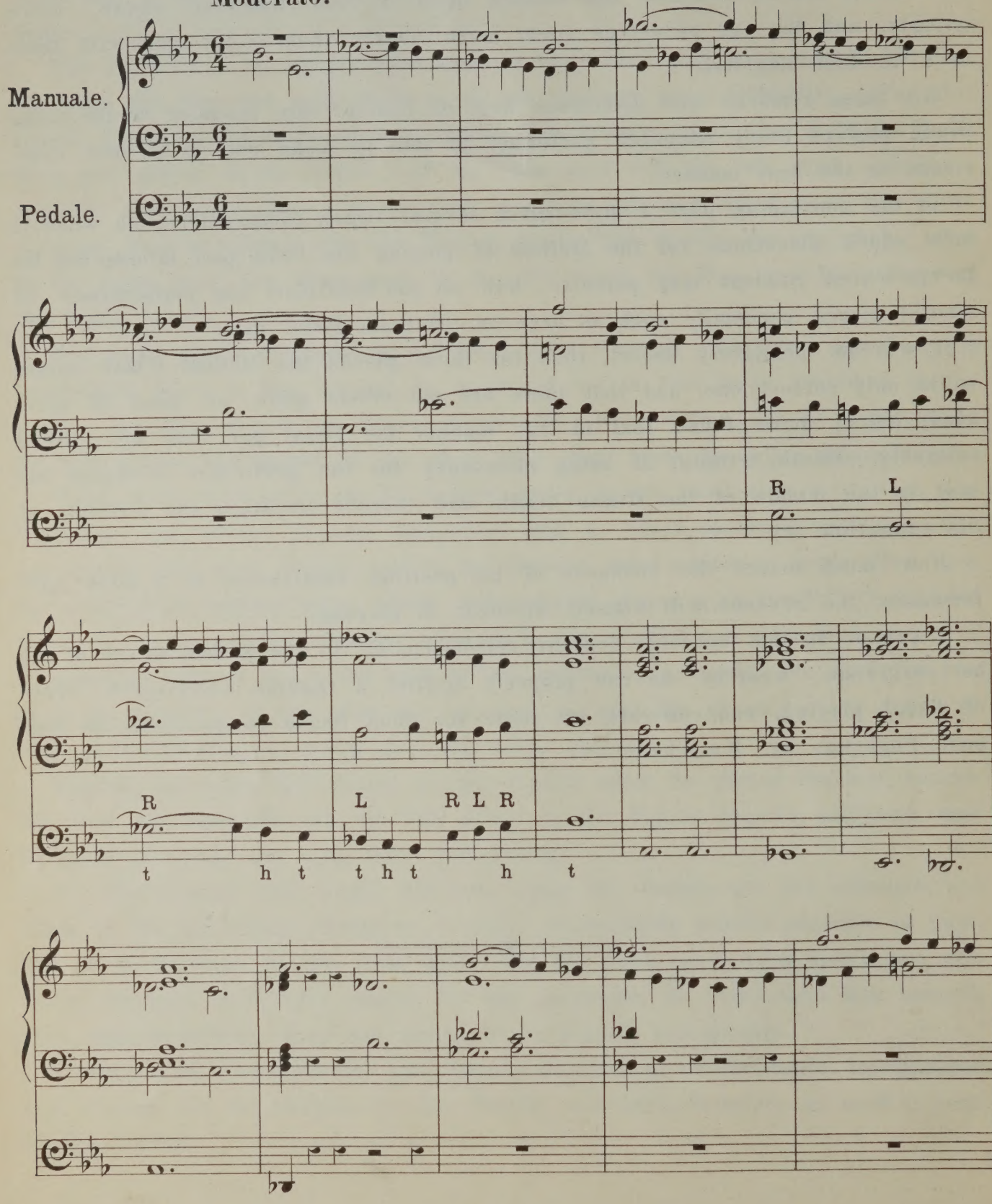
I cannot on this occasion forbear recommending to the Student, as one of the best exercises, whereby he can properly acquire a regular obbligato style of Pedal playing, and cultivate his taste for good Organ compositions, 50 four part Fughettas by Rembt.

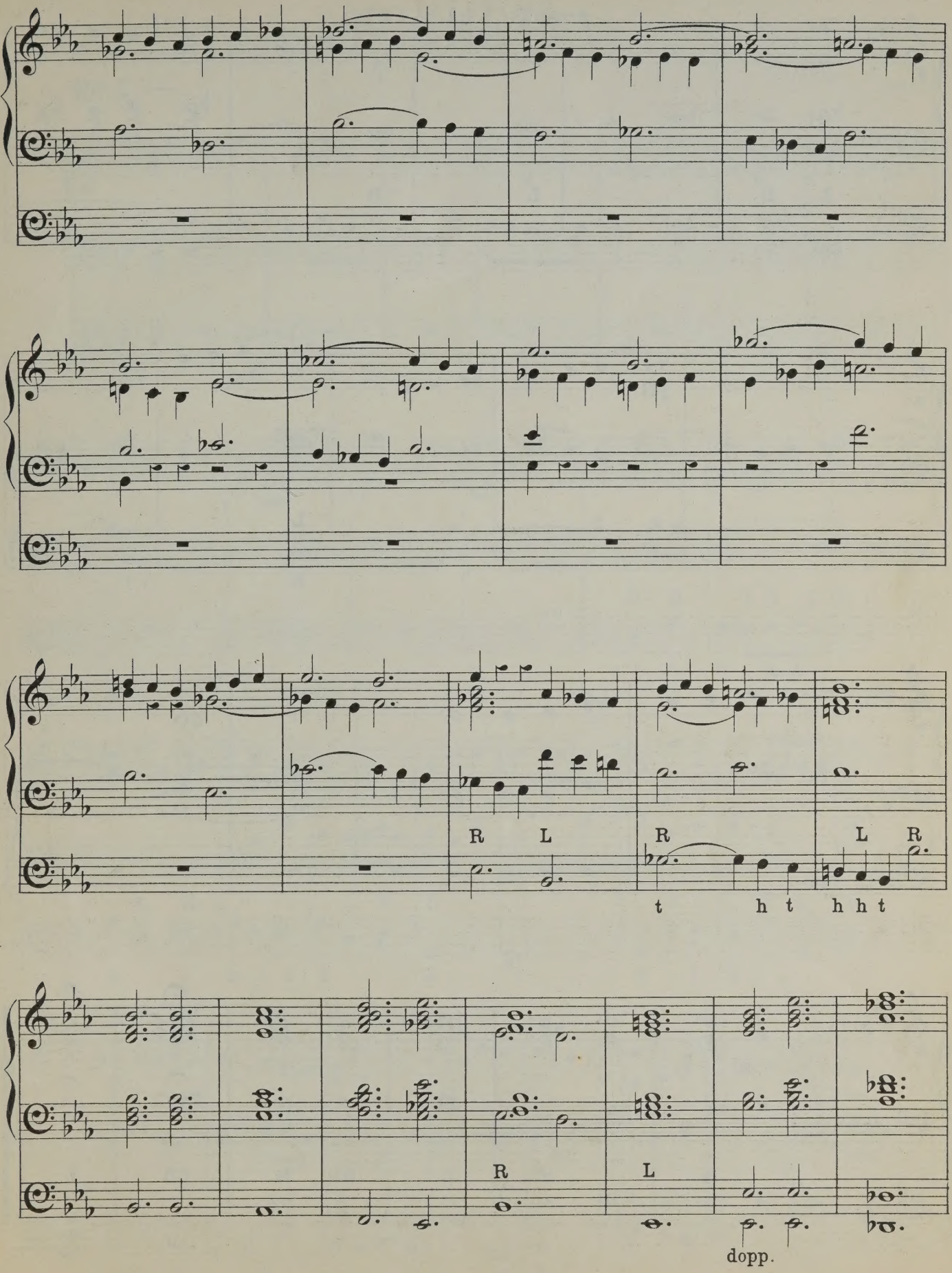
FUGUE.

Nº 1.

A. André.

Moderato.

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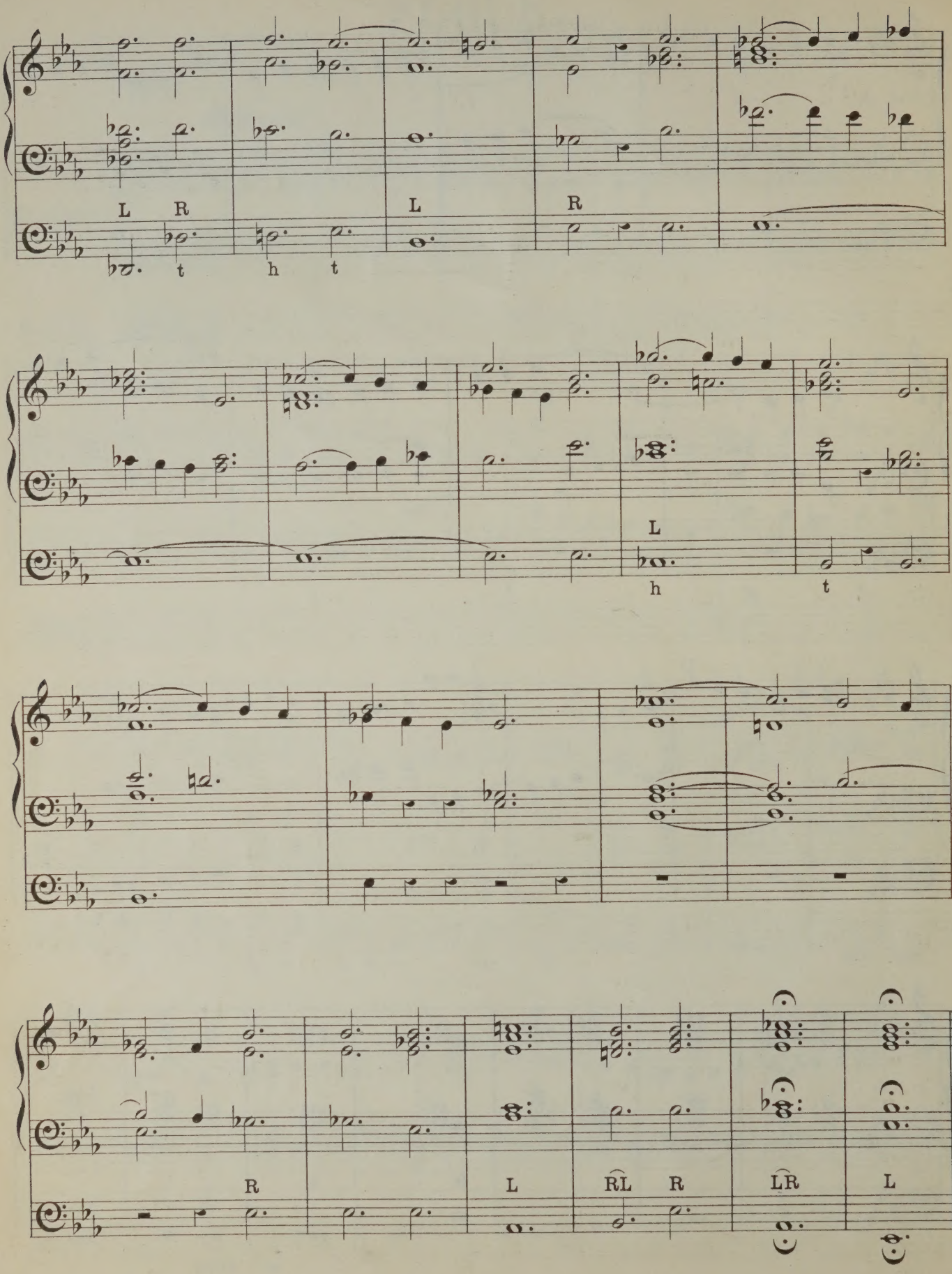
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FUGHETTA.

No 2.

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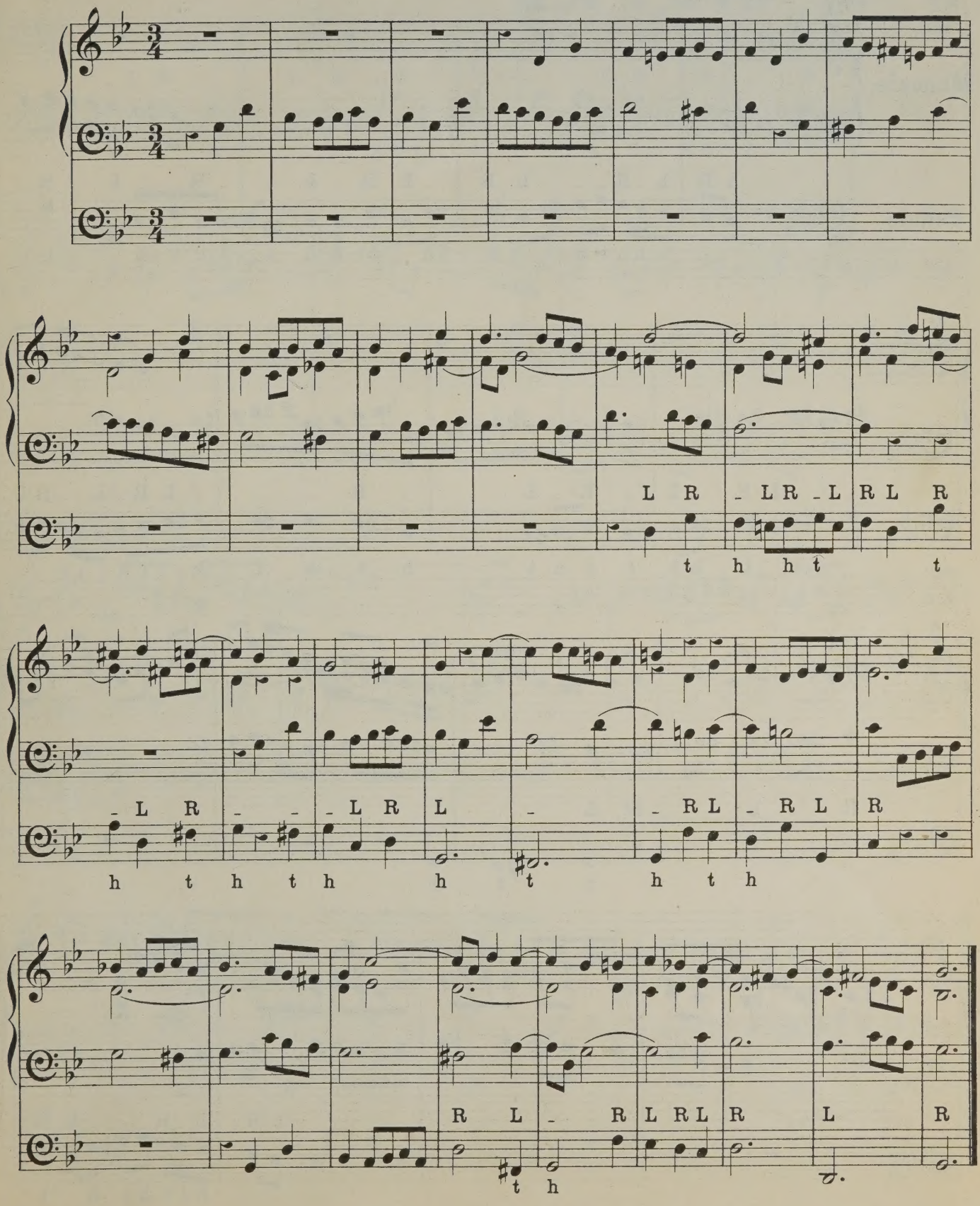

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Dr. E. J. Hopkins
with his old pupil's
kind regards
Nov 27/95.

ORGAN PEDAL TECHNIQUE

BY

BURNHAM W. HORNER

ORGANIST OF ST. LUKE'S, REDCLIFFE SQUARE, SOUTH KENSINGTON.

PRICE TWO SHILLINGS.

In Paper Boards, Two Shillings and Sixpence.

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THE exercises in this book are intended to be supplementary to those in Sir John Stainer's Organ Primer,* and the author acknowledges many valuable suggestions from that gentleman. Thanks are also due to the celebrated Organist, M. Alexandre Guilmant, for his courtesy in allowing some quotations from his works to be made.

---

* "The Organ," by Sir John Stainer (Novello, Ewer and Co.).

8238.

ORGAN PEDAL TECHNIQUE.

SECTION I.

PEDAL touch and phrasing is of so much importance in modern organ playing that no apology is offered for taking the student through the following exercises.

It should be observed that they do not begin, as many others do, with scales, as these are not of paramount importance until touch is acquired with freedom. In many of the exercises will be found difficulties which have only to be practised *slowly* to be overcome with ease.

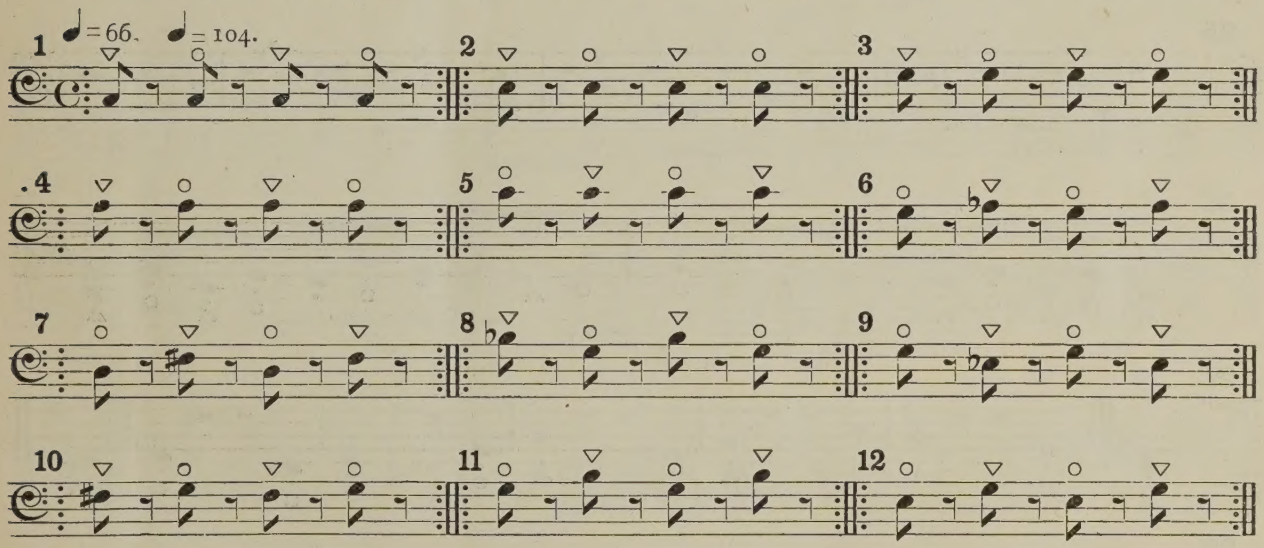
It is of the utmost importance that all movements of the feet should be absolutely from the ankle-joint, and swaying to and fro of the body should be guarded against and checked directly.

The means employed for ascertaining the locality of each note, without looking at the pedal-board, should be those recommended in Sir John Stainer's "Organ Primer,"* Par. 78, *et seq.*

The exercises should commence at a *slow* pace, according to the first metronome mark, and when the ankle-joint becomes supple the quicker pace may be chosen.

In order to attain this freedom, the following exercises should be played over a sufficient number of times, but before the joint becomes overtired; a change of foot will restore the elasticity.

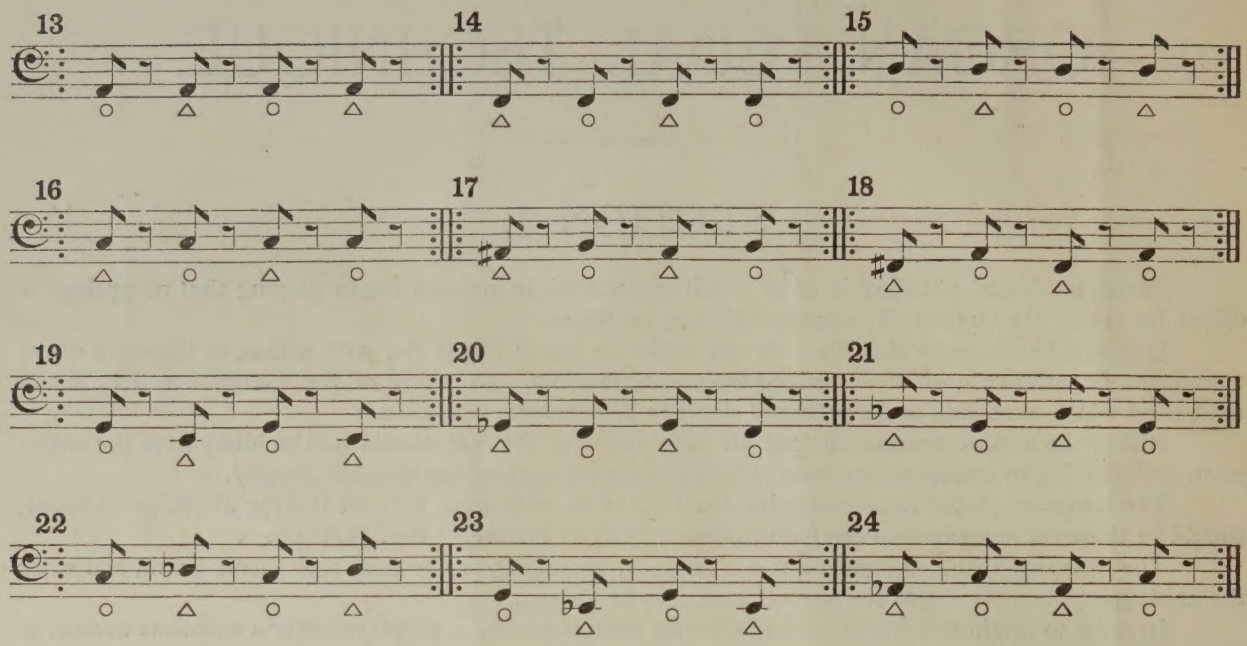
STACCATO TOUCH FOR RIGHT FOOT.



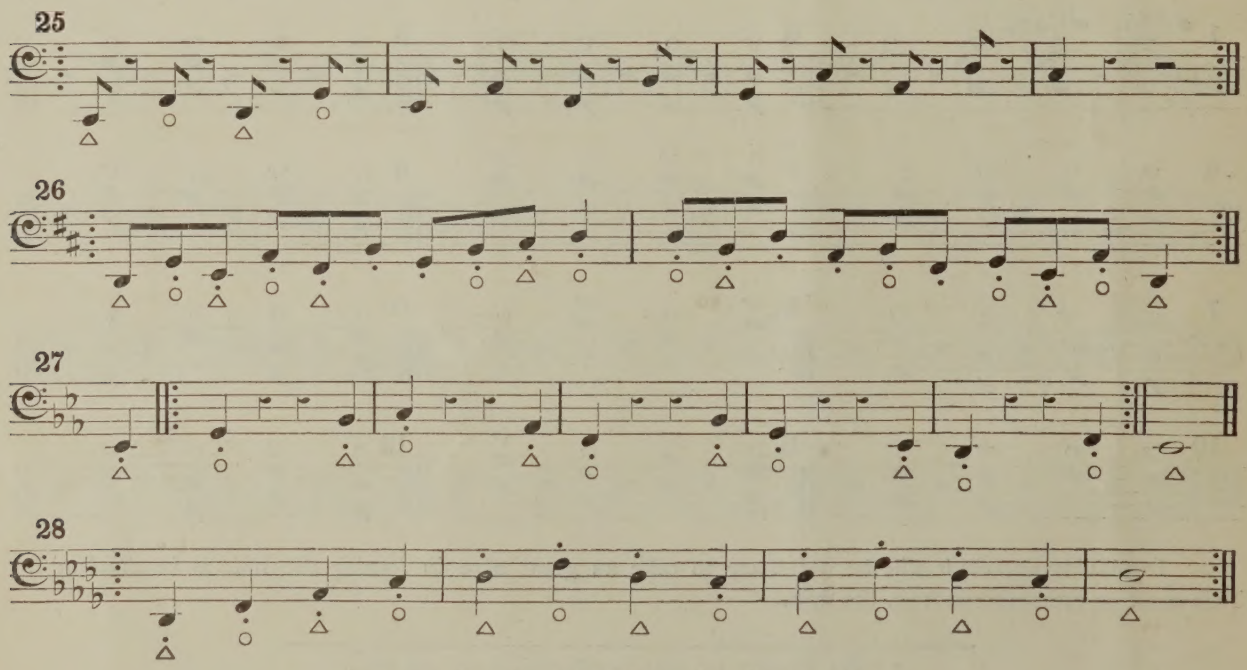
In playing *staccato* it will be necessary to take as great care in *leaving* the note as in *attacking* it. This must be remembered from the first.

* "The Organ," Dr. Stainer (Novello, Ewer and Co.).

STACCATO TOUCH FOR LEFT FOOT.



In the following passages for one foot it should be observed that in ordinary cases they would be played by both feet; here they are intended solely to facilitate the action of the ankle-joint.



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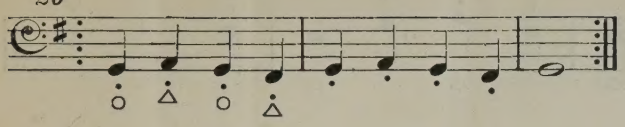

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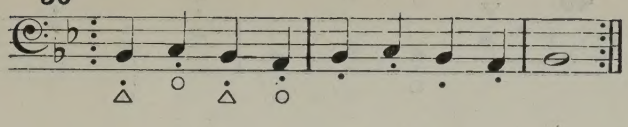

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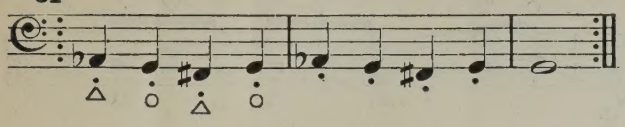

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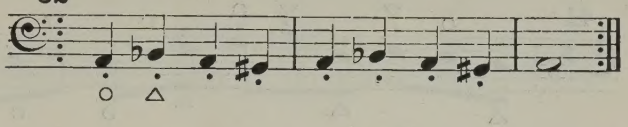

STACCATO FOR BOTH FEET.

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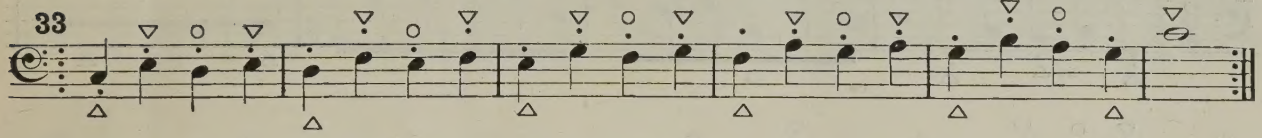

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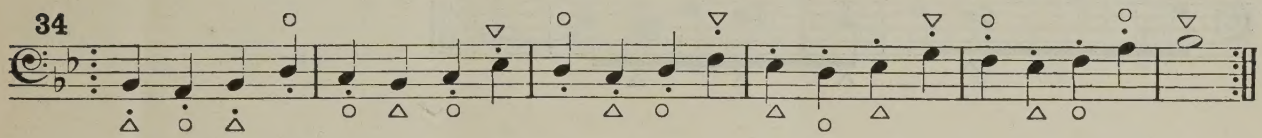

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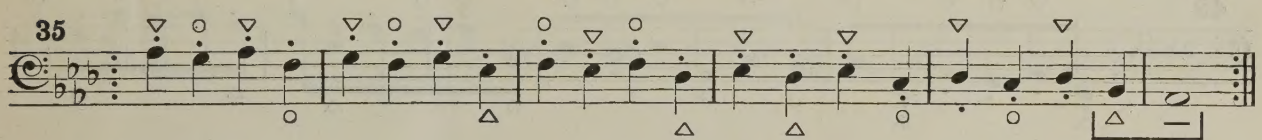

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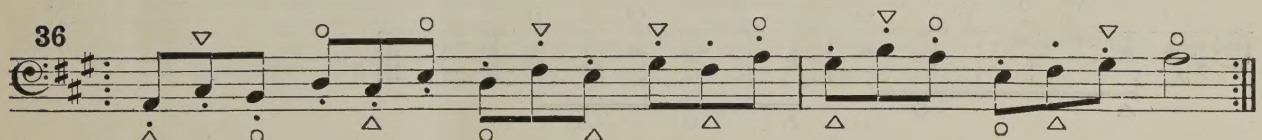

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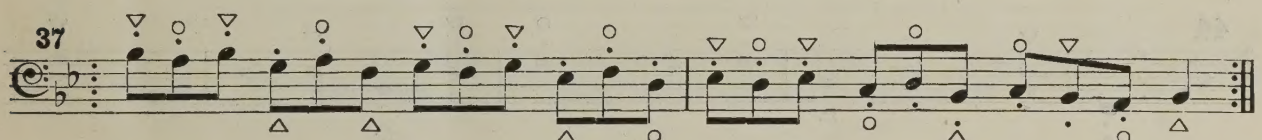

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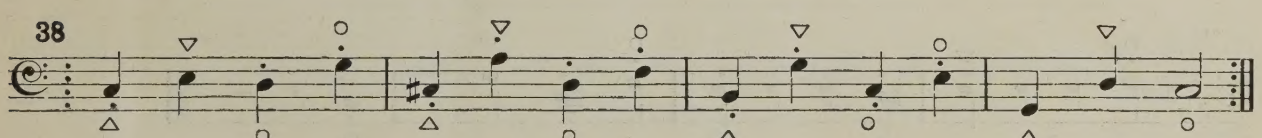

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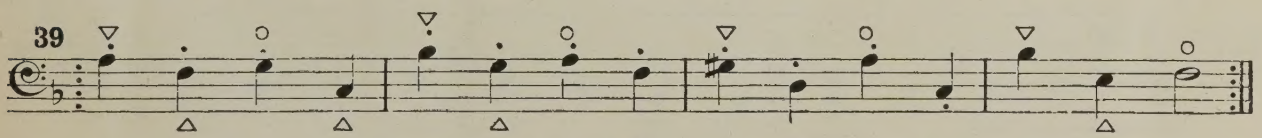

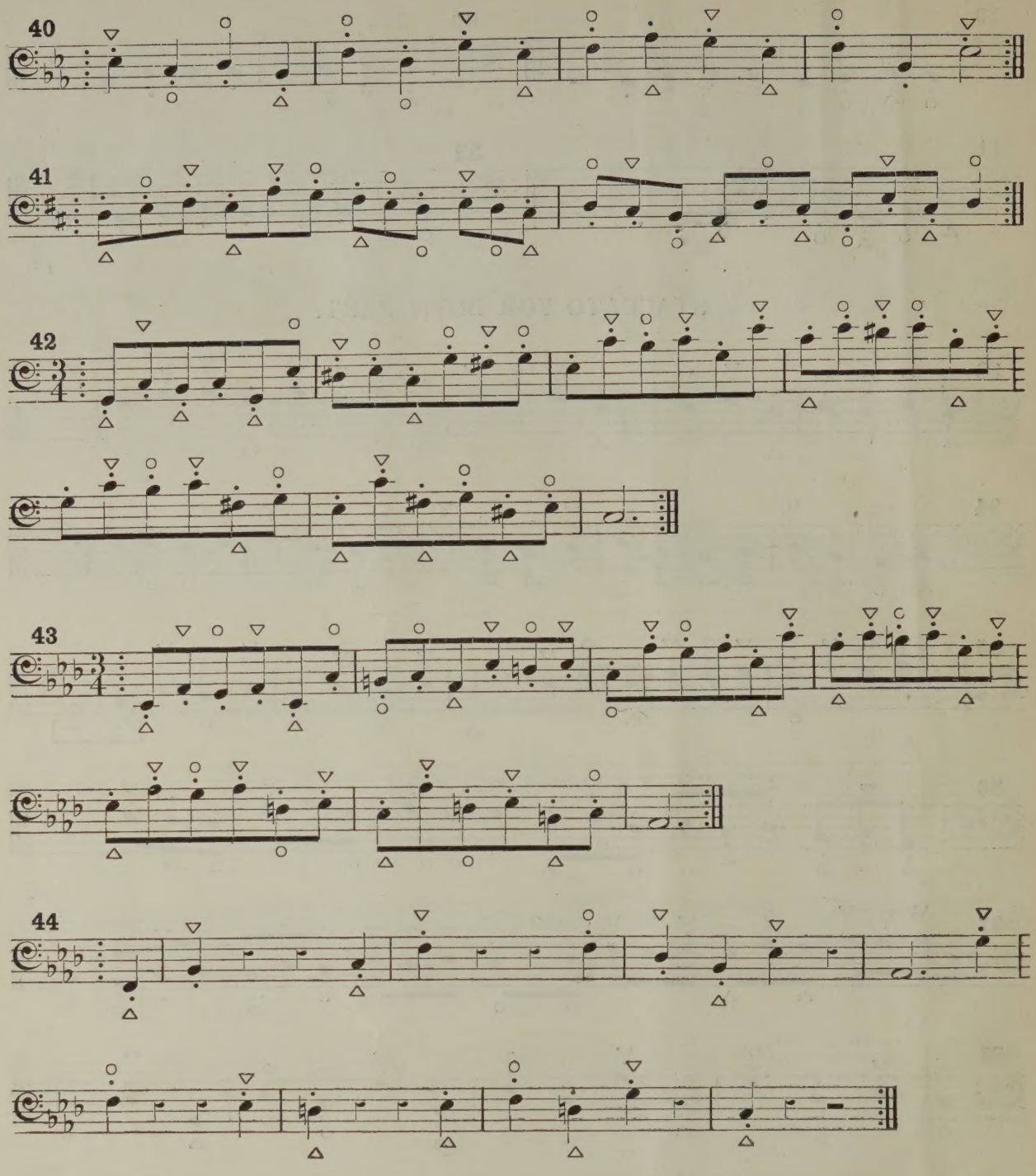
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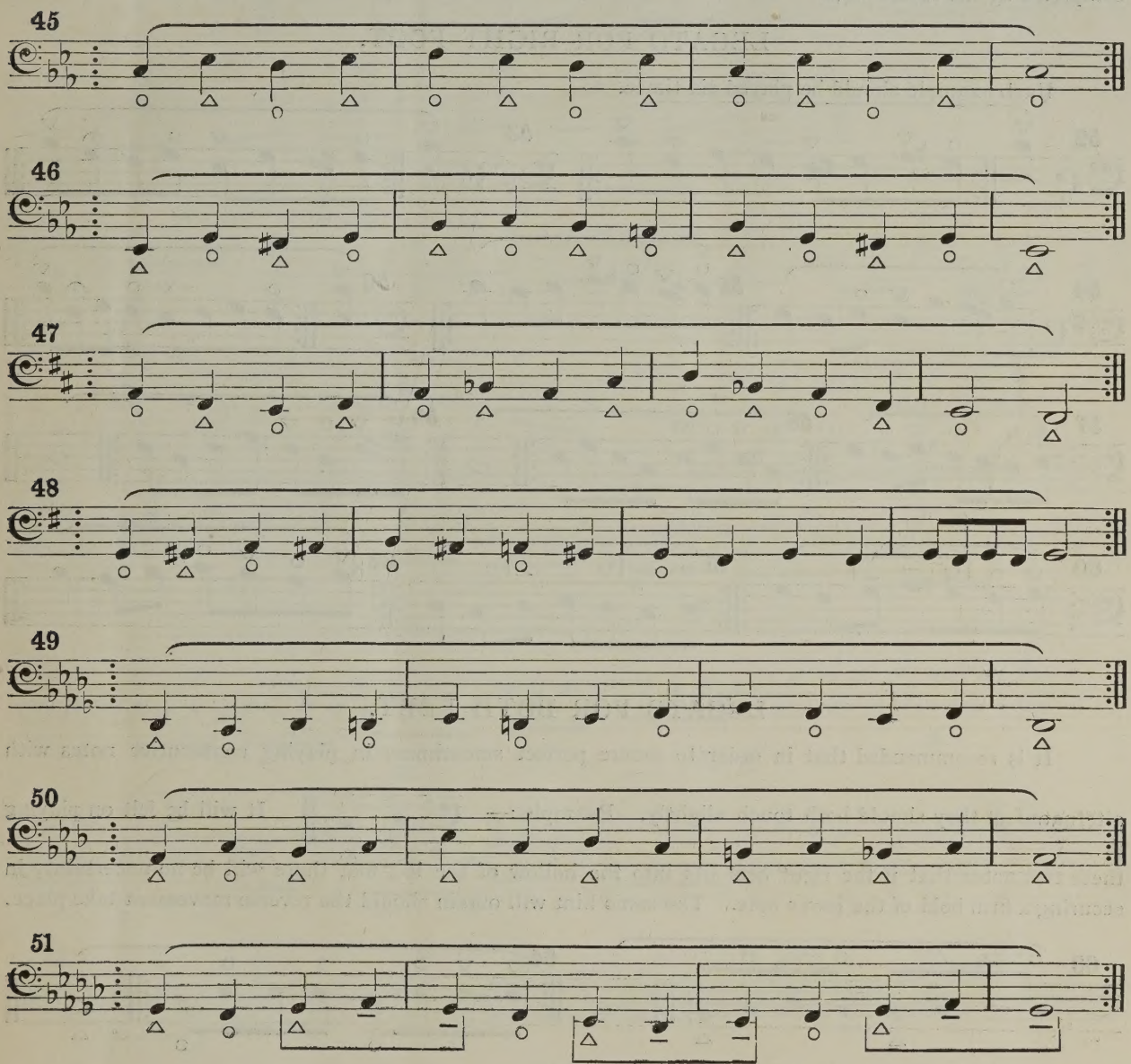
SECTION II.

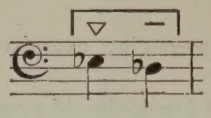
HAVING mastered the preceding exercises, the following should be practised to acquire the *legato* touch.

It is imperative that no break should occur in passing from one note to another. Absolute freedom of ankle should be cultivated in accordance with the instructions laid down in Sir John Stainer's "Organ Primer," Par. 72.

LEGATO FOR LEFT FOOT.



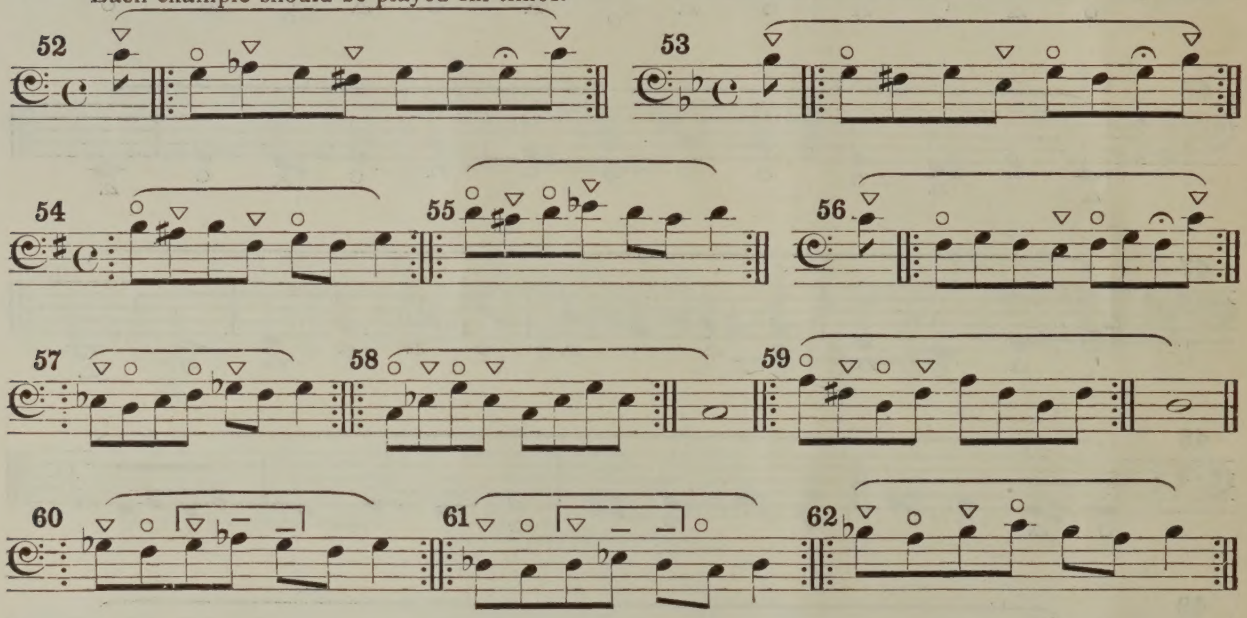
An essential point to be noticed occurs in Example 51. Two short keys follow in succession. These should be played placing the foot flatly over both, then play the first note with the left hand side of the foot, the second note with the right hand side, an imaginary pivot running from *back to front* of the foot. The foot should not move to the left or right.

When the notes are as follows for the right foot—  the *outside* edge is employed for the first note and the *inside* edge for the second.

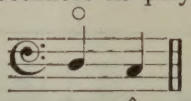
It will be manifest that this method is reversed should the former example begin on the higher, and the latter on a lower note. The sign used for this plan is ⌈▽ —⌉. It is also possible for one foot to play *three* short keys in succession, then the outside edge would be followed by the sole, and the third note completed by the inside edge.

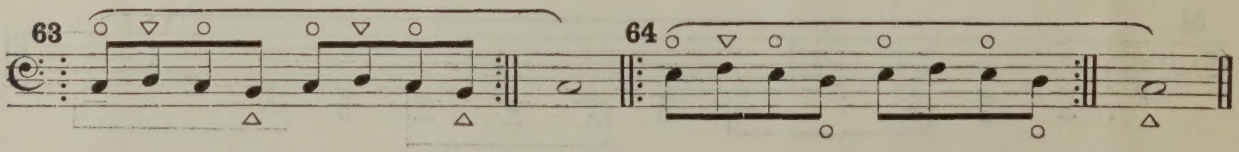
LEGATO FOR RIGHT FOOT.

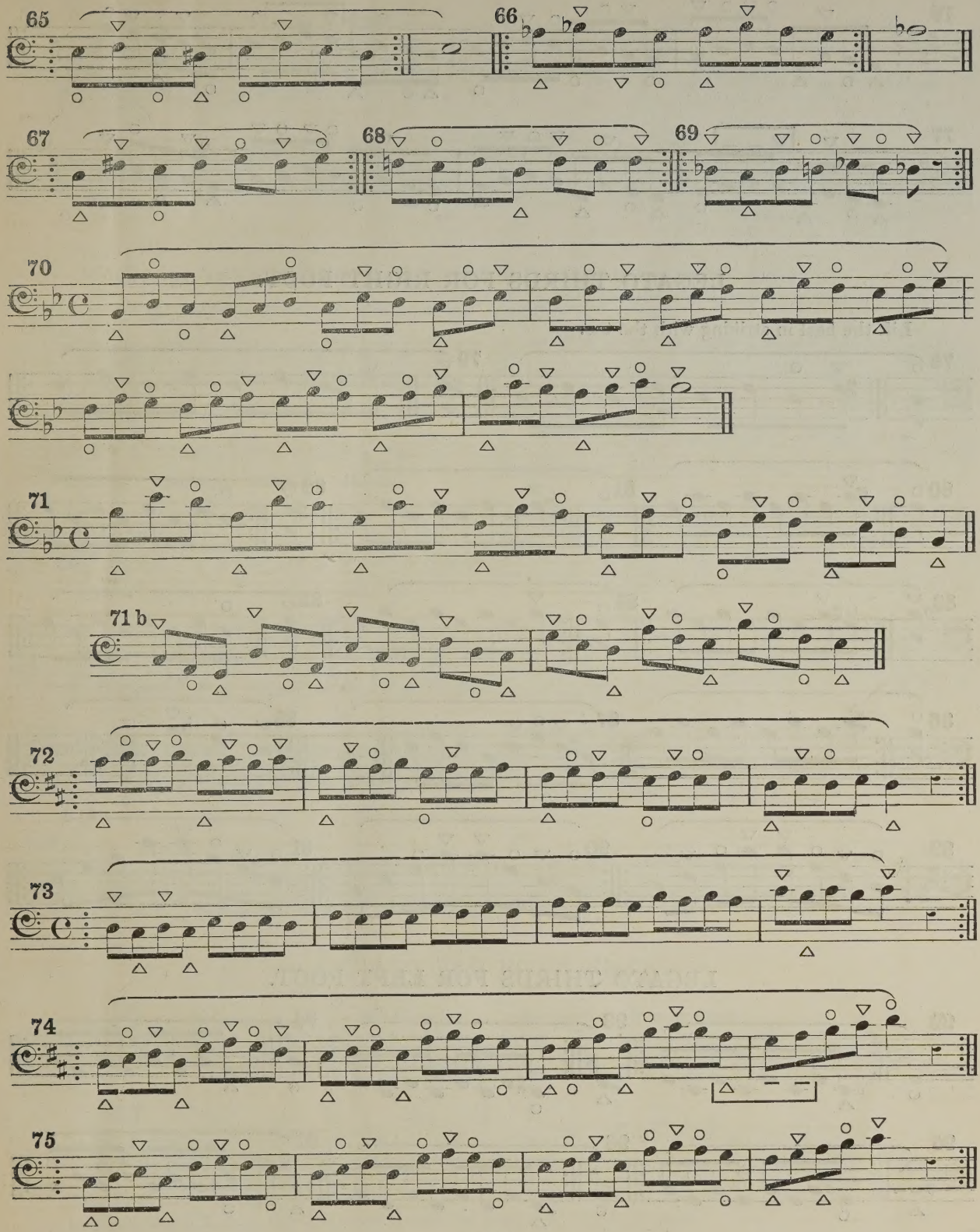
Each example should be played six times.



LEGATO FOR BOTH FEET.

It is recommended that in order to secure perfect smoothness in playing consecutive notes with alternate feet they should both touch slightly. Example :—  It will be felt on playing these two notes that if the right heel fits into the hollow of the left foot there will be no uncertainty in securing a firm hold of the lower note. The same hint will obtain should the reverse movement take place.

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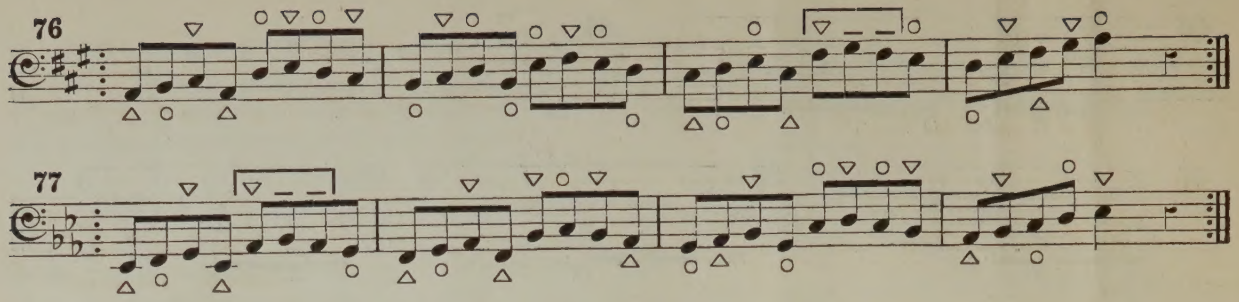
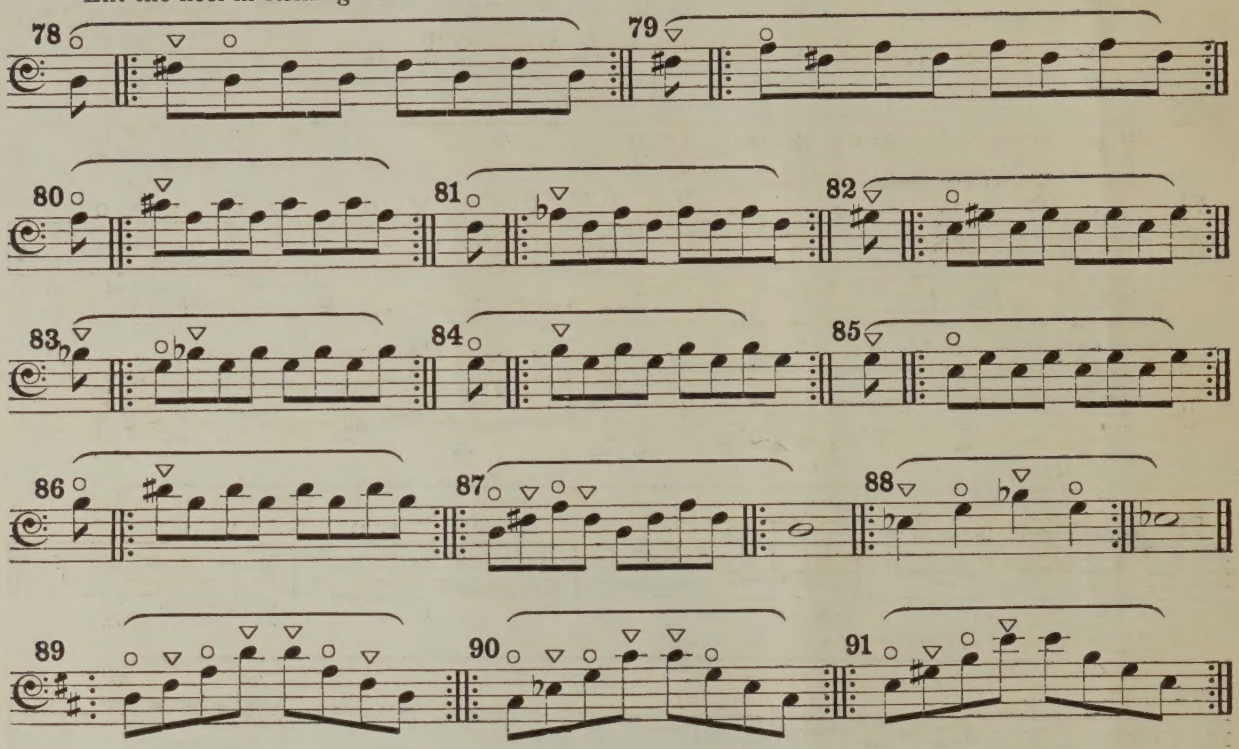
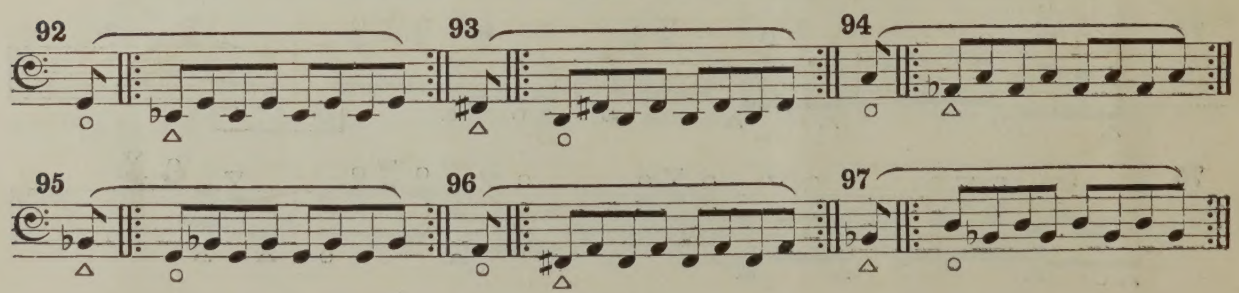


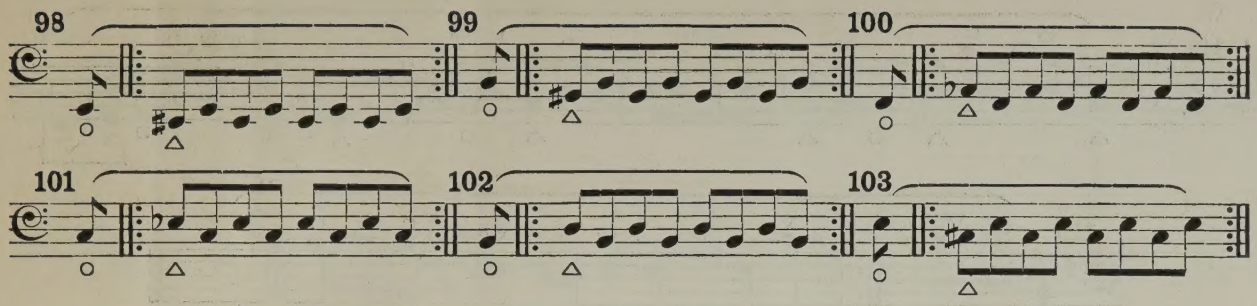
LEGATO THIRDS FOR RIGHT FOOT.

Lift the heel in striking with the toe.

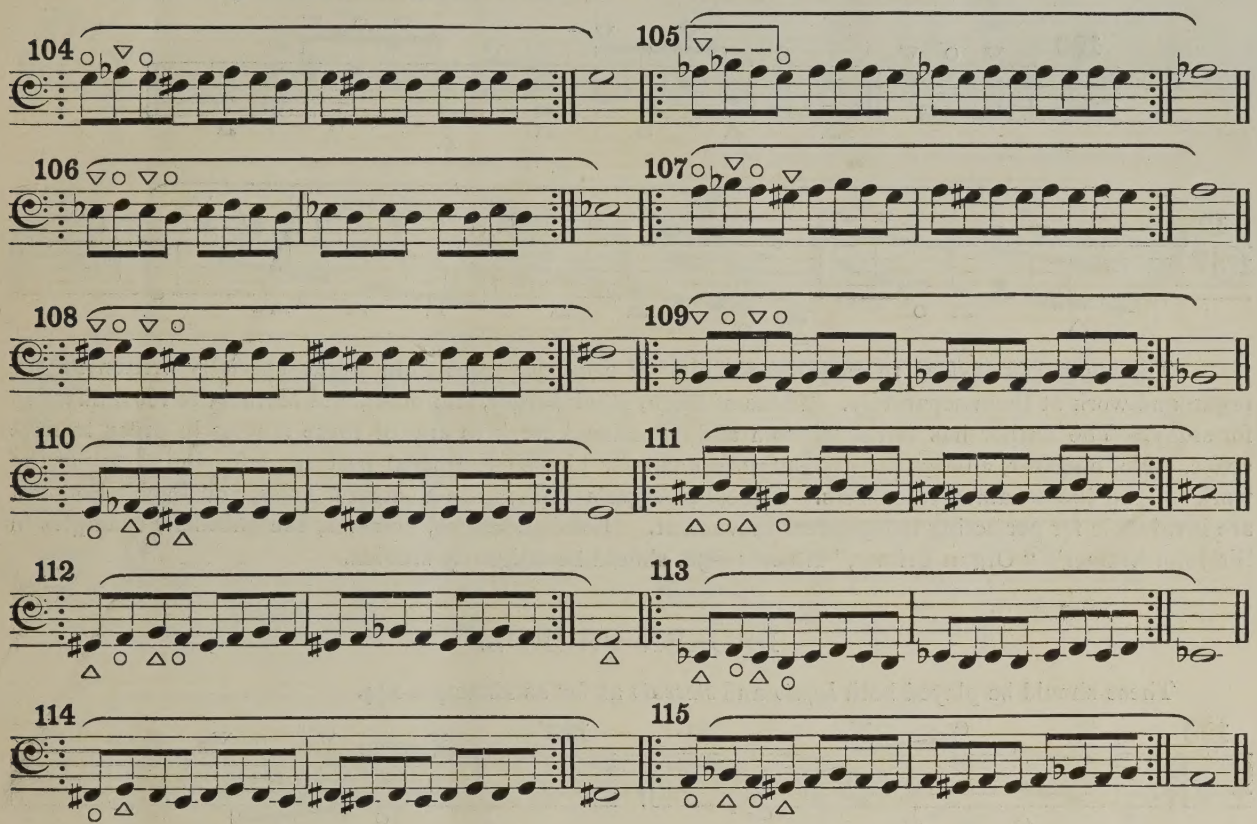


LEGATO THIRDS FOR LEFT FOOT.

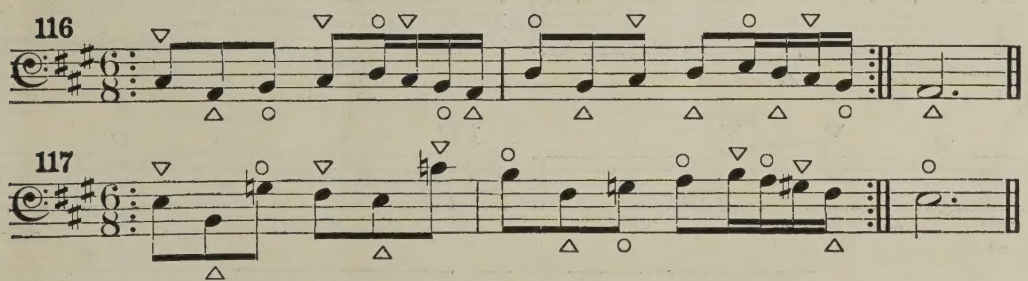




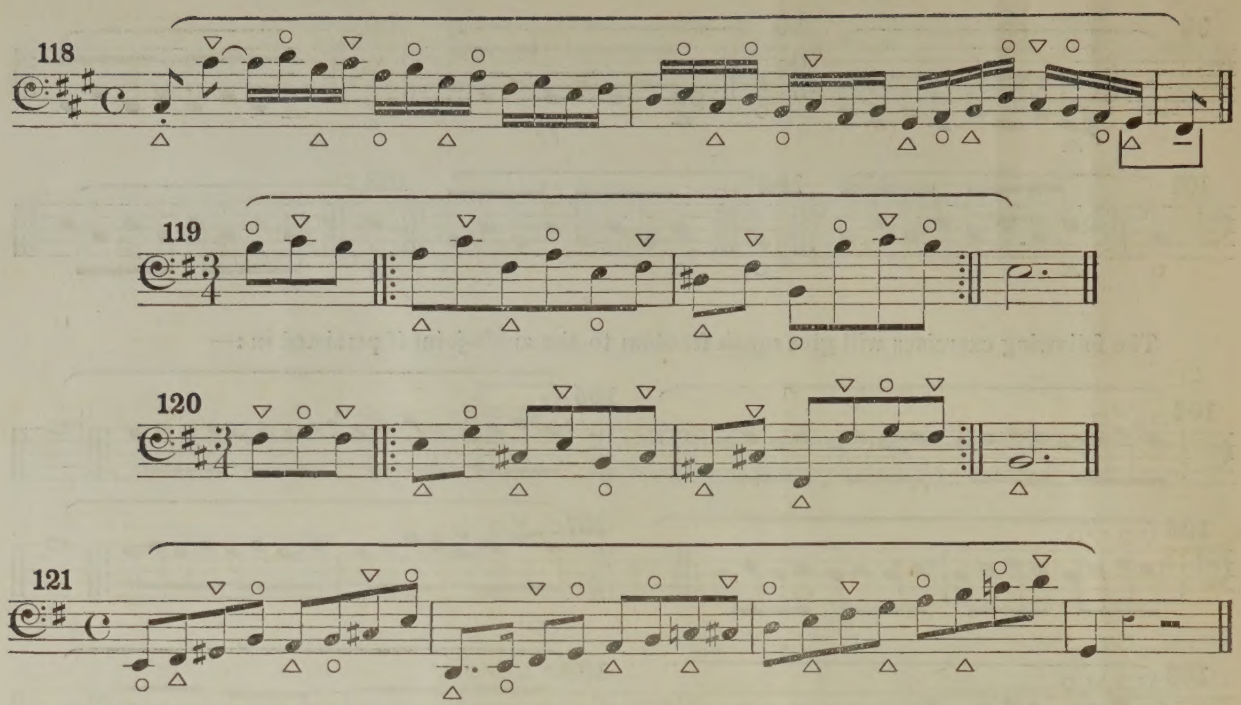
The following exercises will give much freedom to the ankle-joint if persisted in :—



LEGATO FOR BOTH FEET.



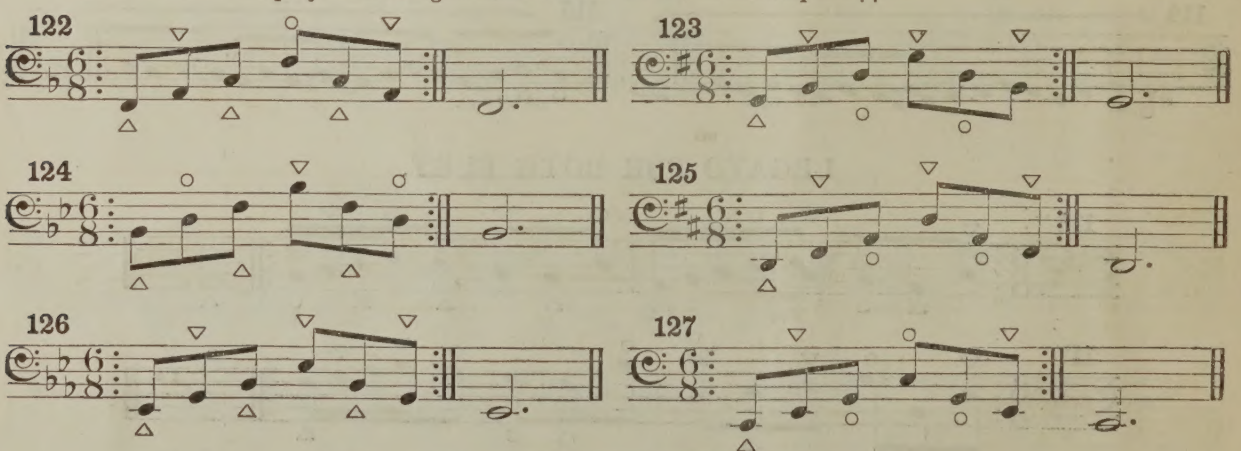
In repeating Ex. 117, the first note should be played by the right *heel*.



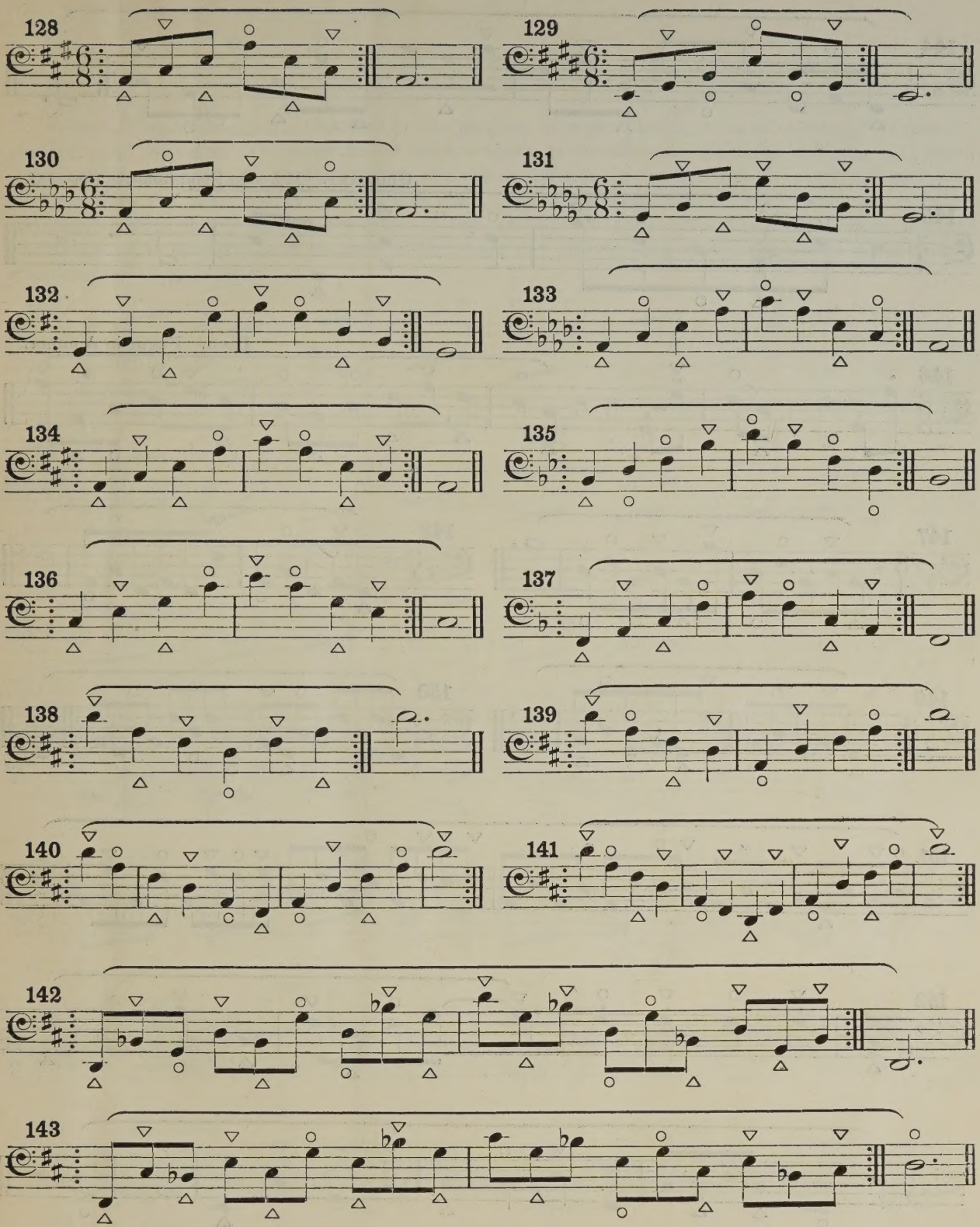
The student is advised to copy out for himself pedal passages from works specially written for the organ and work at them separately. Those of Bach, Rheinberger, Guilmant, and Merkel are recommended for study. The author has refrained from adding manual work to any of these studies in order to save space. He, however, advises the student to set out for himself the pedal part and left hand of any of the works of the above-named composers. Albrechtsberger's Trios,* Rheinberger's Trios, and Bach's Sonatas are invaluable for perfecting independent movement. Before doing so, however, the excellent examples in Sir John Stainer's "Organ Primer," Nos. 84—90, should be diligently studied.

BROKEN CHORDS.

These should be played both *legato* and *staccato* as far as Example 144.



* Edited by Marchant. Novello's Primers, No. 48.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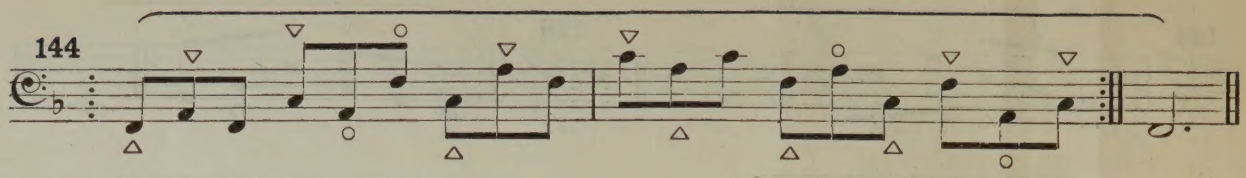

GUILMANT. Morceau Symphonique (Op. 75).

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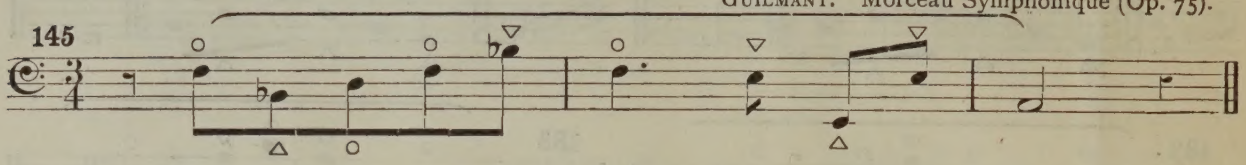

BACH. Fugue in A minor.

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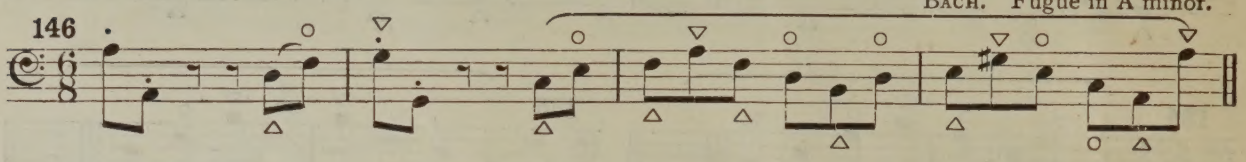

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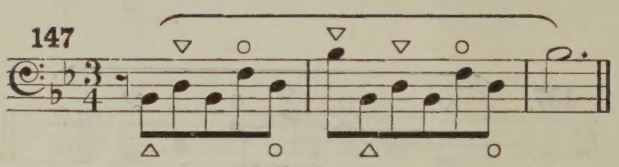

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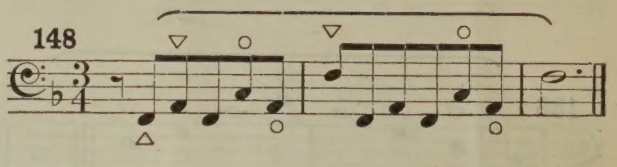

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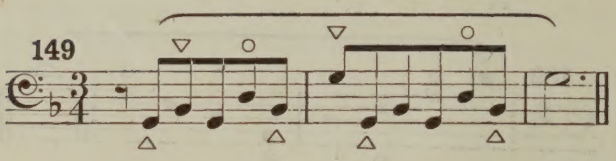

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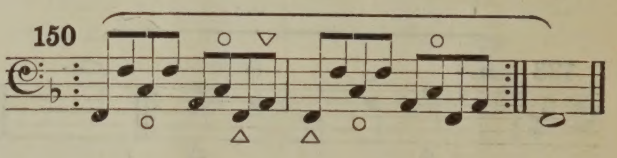

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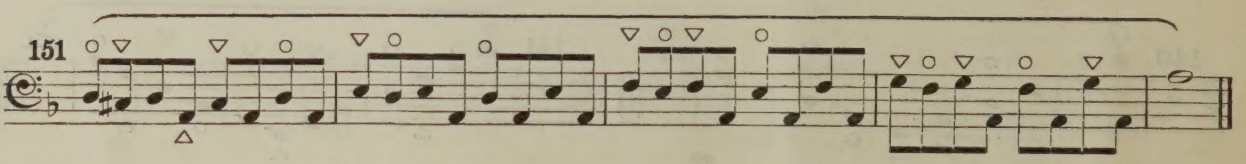

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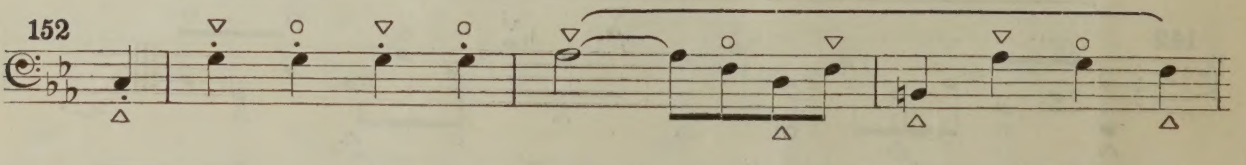
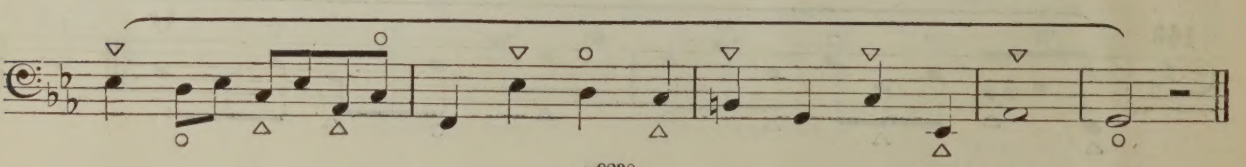
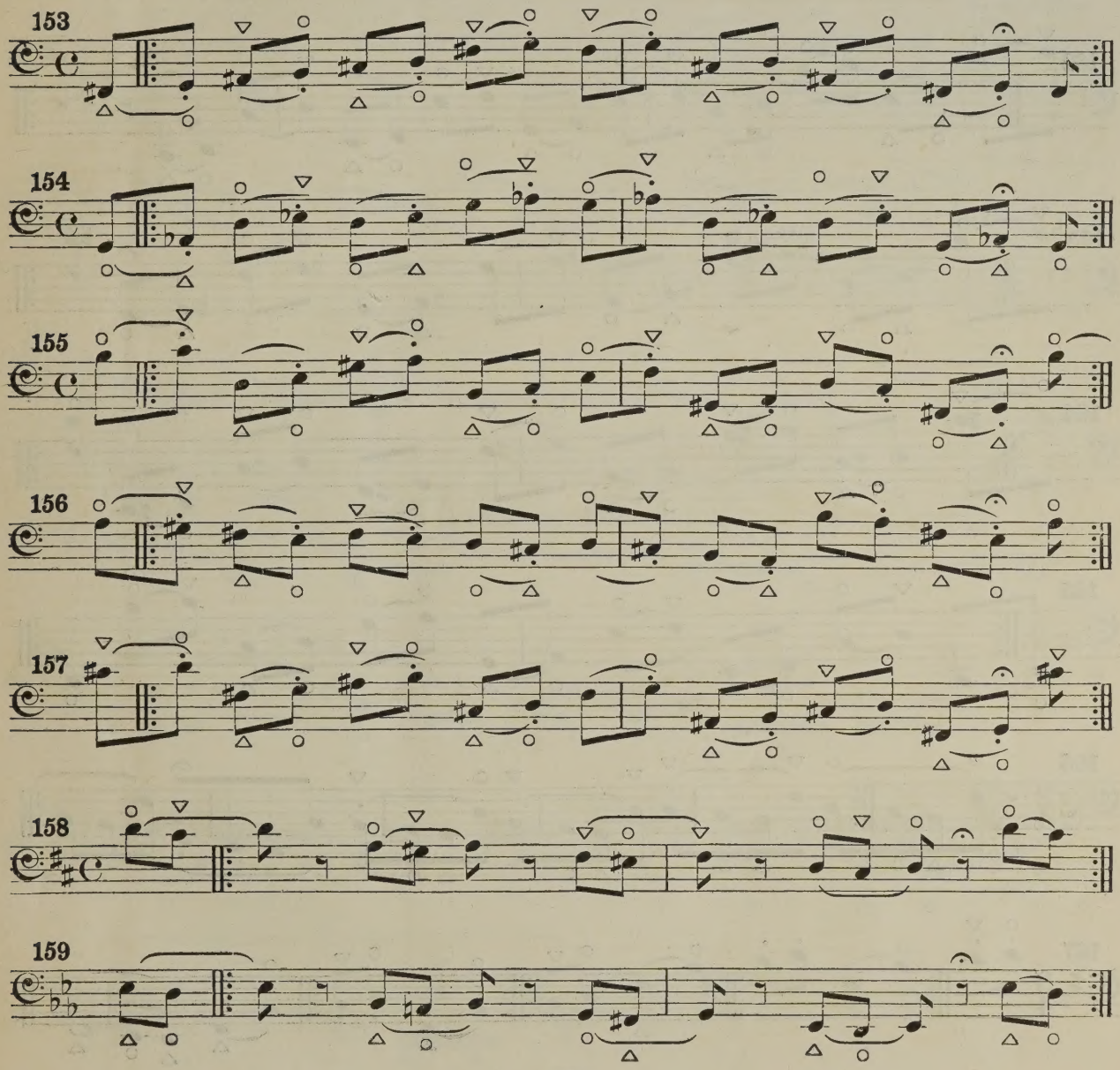




SECTION III.

One of the most important features in the progress of organ playing is the advancement of properly phrased pedal passages. It is essential, in modern works, to literally treat the pedal bass as a third hand. Those sections of melody that are not merely mechanical have to be treated with the same care as if they were played by the hands. It is therefore incumbent upon the student to bear this in mind, and to follow minutely the dynamic marks that are given in this Section. It should be observed in playing the next exercises to move smoothly from one note to the next; but extreme care must be exercised in the manner of *quitting* the staccato note.



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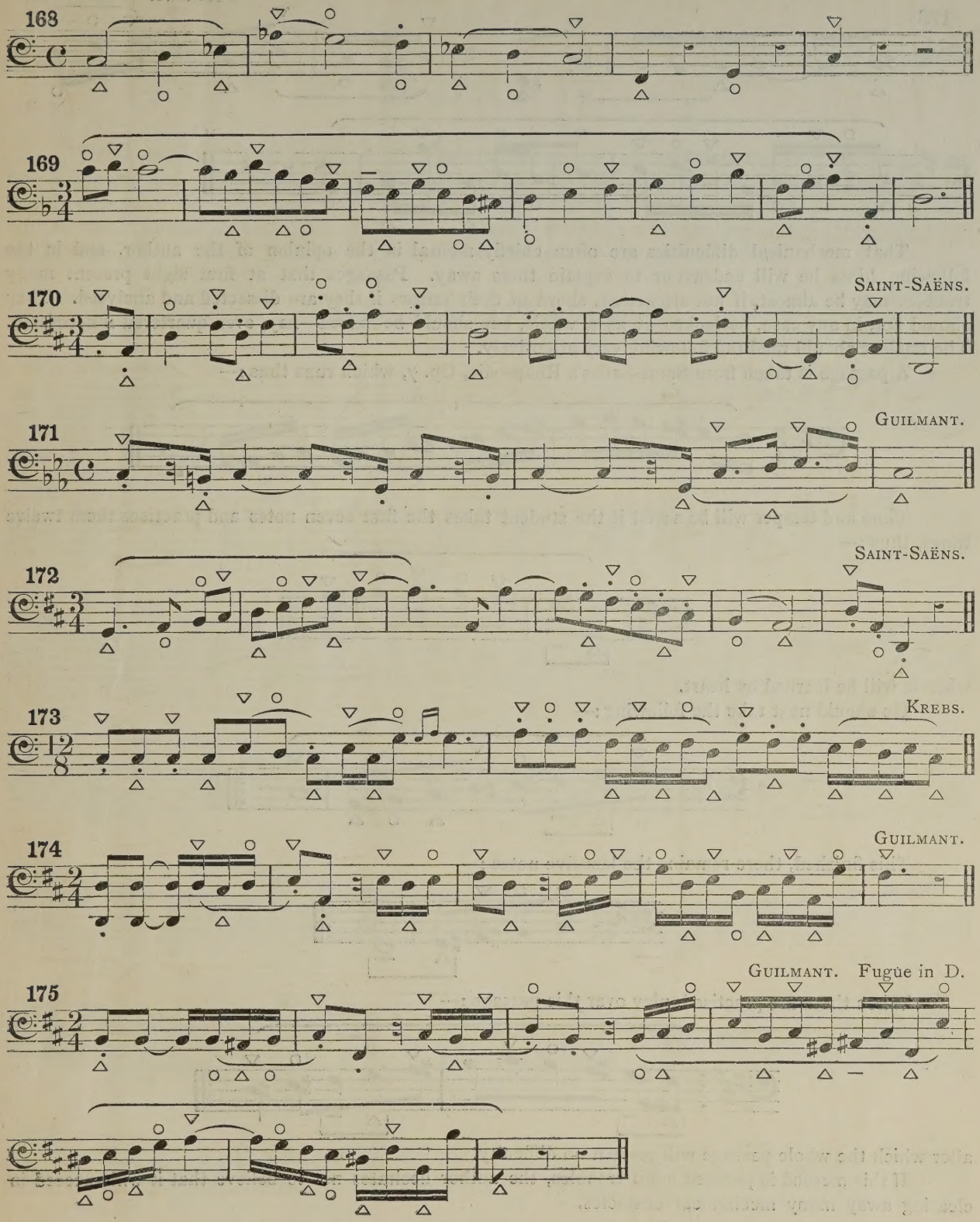
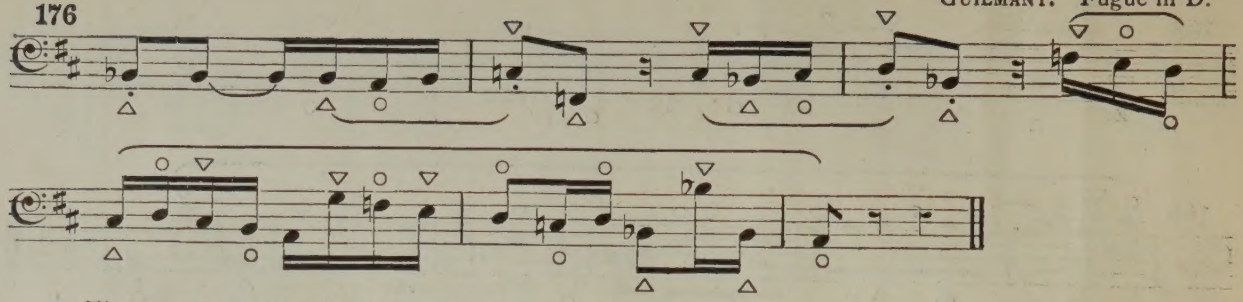

168
169
170
Saint-Saëns.
171
Guilmant.
172
Saint-Saëns.
173
Krebs.
174
Guilmant.
175
Guilmant. Fugue in D.

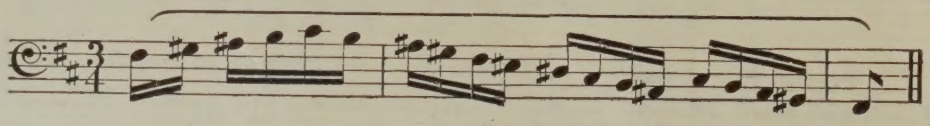
176

GUILMANT. Fugué in D.

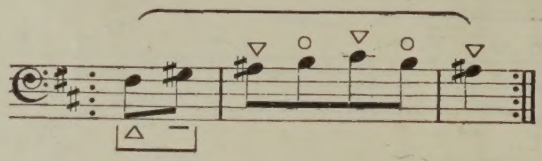


That mechanical difficulties are often chiefly mental is the opinion of the author, and in the following hints he will endeavour to explain them away. Passages that at first sight present many troubles may be almost, if not altogether, shorn of their terrors if they are dissected and analysed. They should not, in any case, be looked at as a whole, but should be halved—nay, even quartered if necessary. The student should read the following very attentively.

A passage is taken from Saint-Saëns's Rhapsodie, Op. 7, which runs thus :—

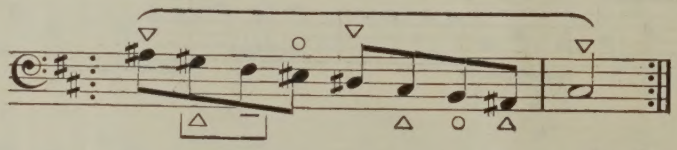


Time and temper will be saved if the student takes the first seven notes and practises them twelve times, thus :—

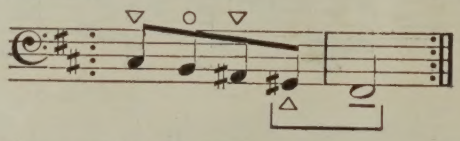


when it will be learned by heart.

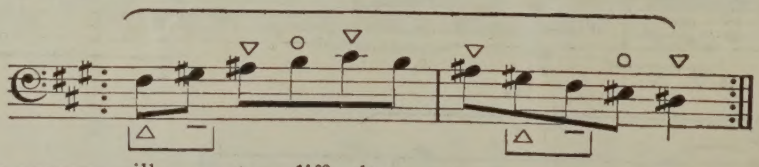
He should next take the following :—



This finished, there remains the last five notes :—



When these are practised, play over this passage :—



after which the whole passage will present no difficulty.

If this method is pursued in all troubles, the author hesitates not to believe that it will succeed in clearing away many mechanical obstacles.

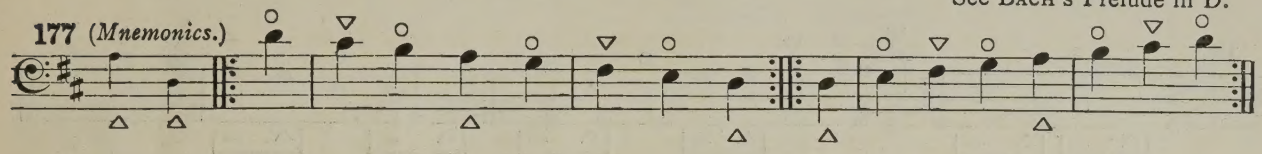
SECTION IV.

It now remains to practise scales. The preliminary exercise placed before each scale is a mnemonic for placing one foot on the notes to be played by that foot. In each case it should be learned by heart. A certain amount of monotony being felt from playing the scales in a cycle of keys, they have been written with no regard of relation one to the other; the only formal method pursued is that of succeeding the major by the tonic minor. Where practicable the feet should be *in touch* one with the other.

SCALES FOR UPPER OCTAVE.

See Bach's Prelude in D.

177 (*Mnemonics.*)



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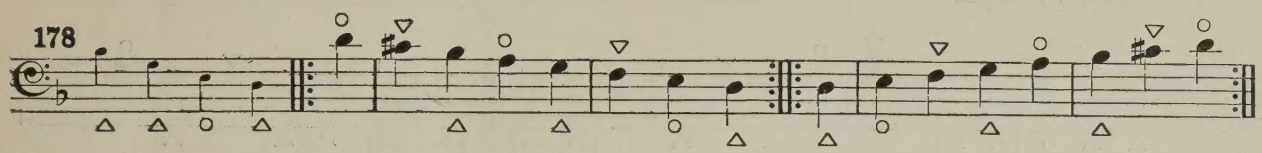

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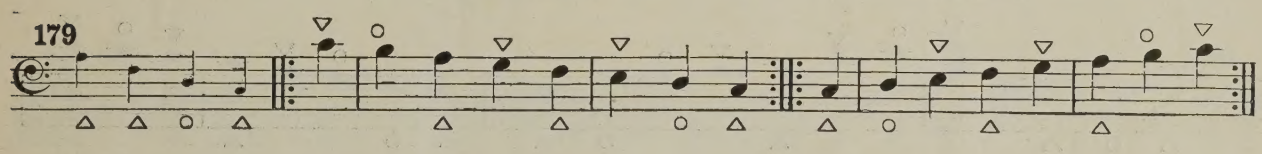

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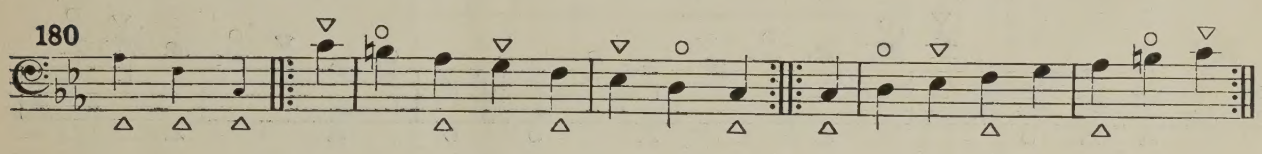

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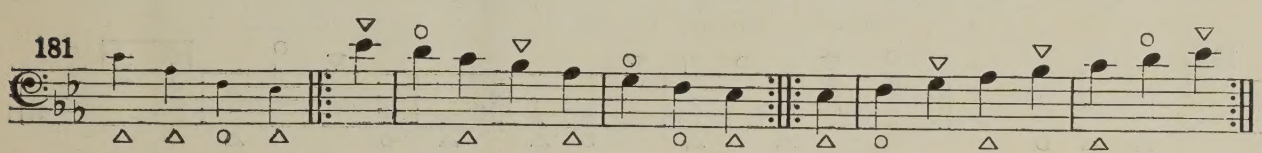

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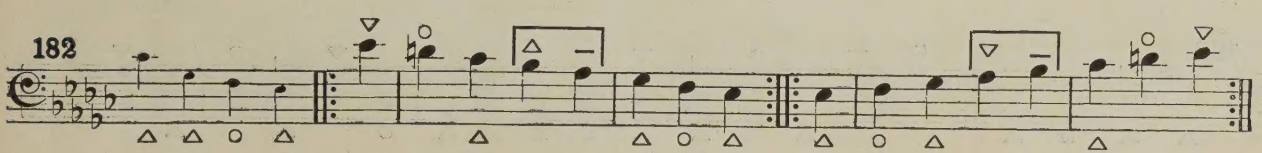

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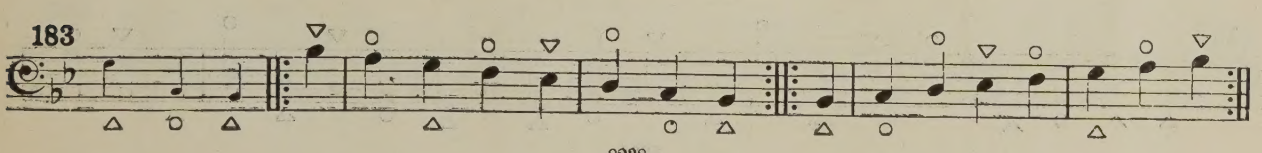

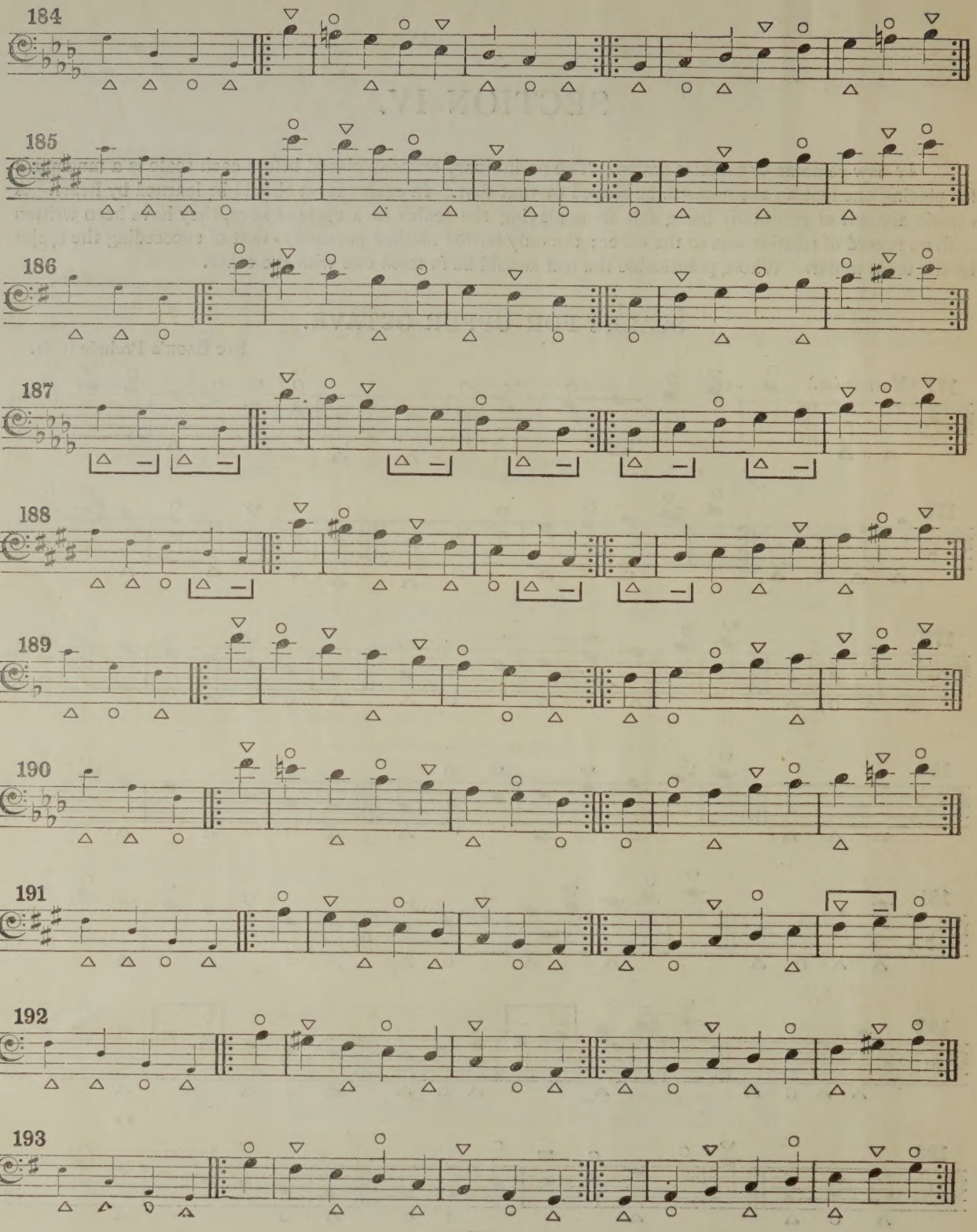
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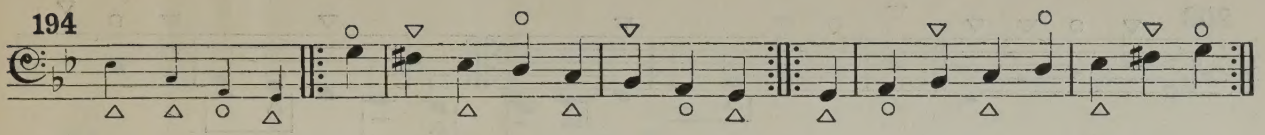

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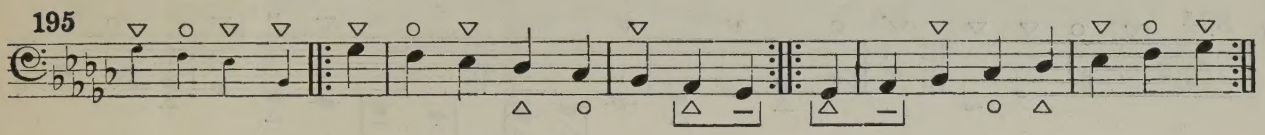

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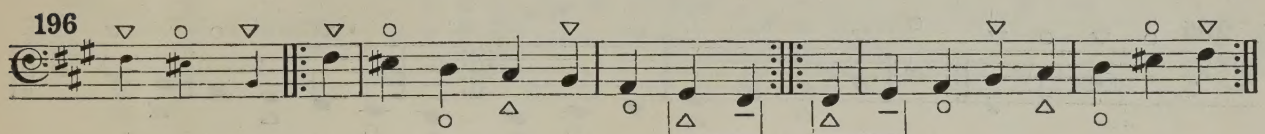

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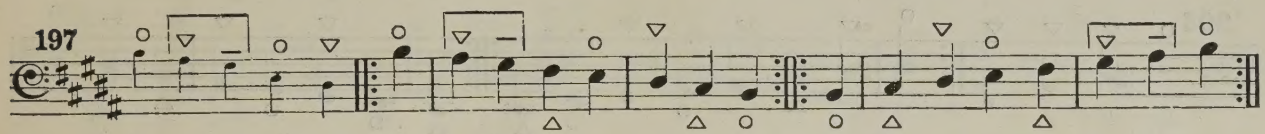

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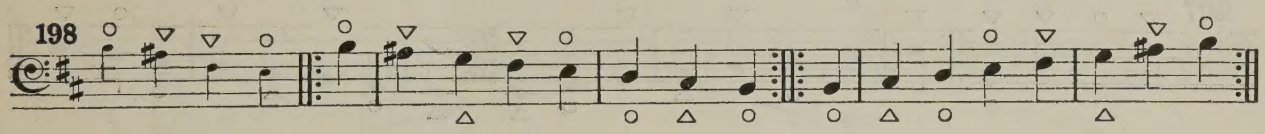

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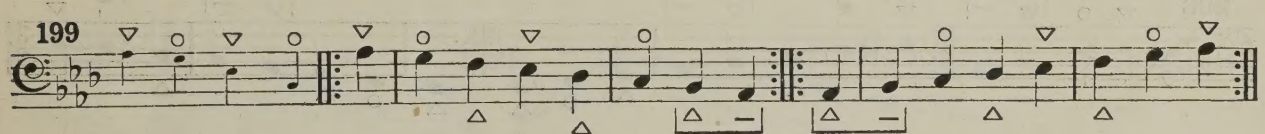

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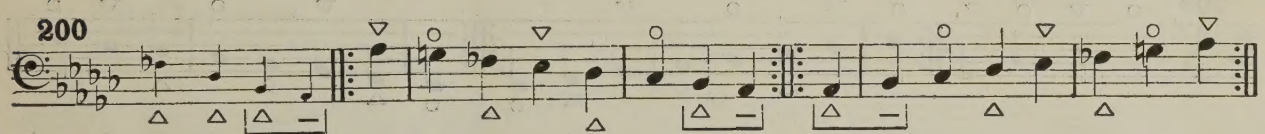
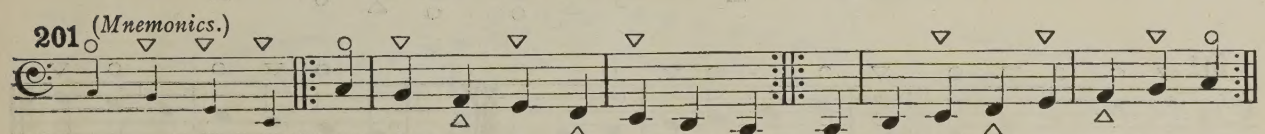


SCALES FOR LOWER OCTAVE.

201 (*Mnemonics.*)



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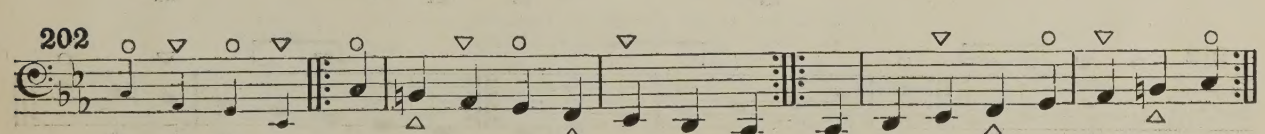

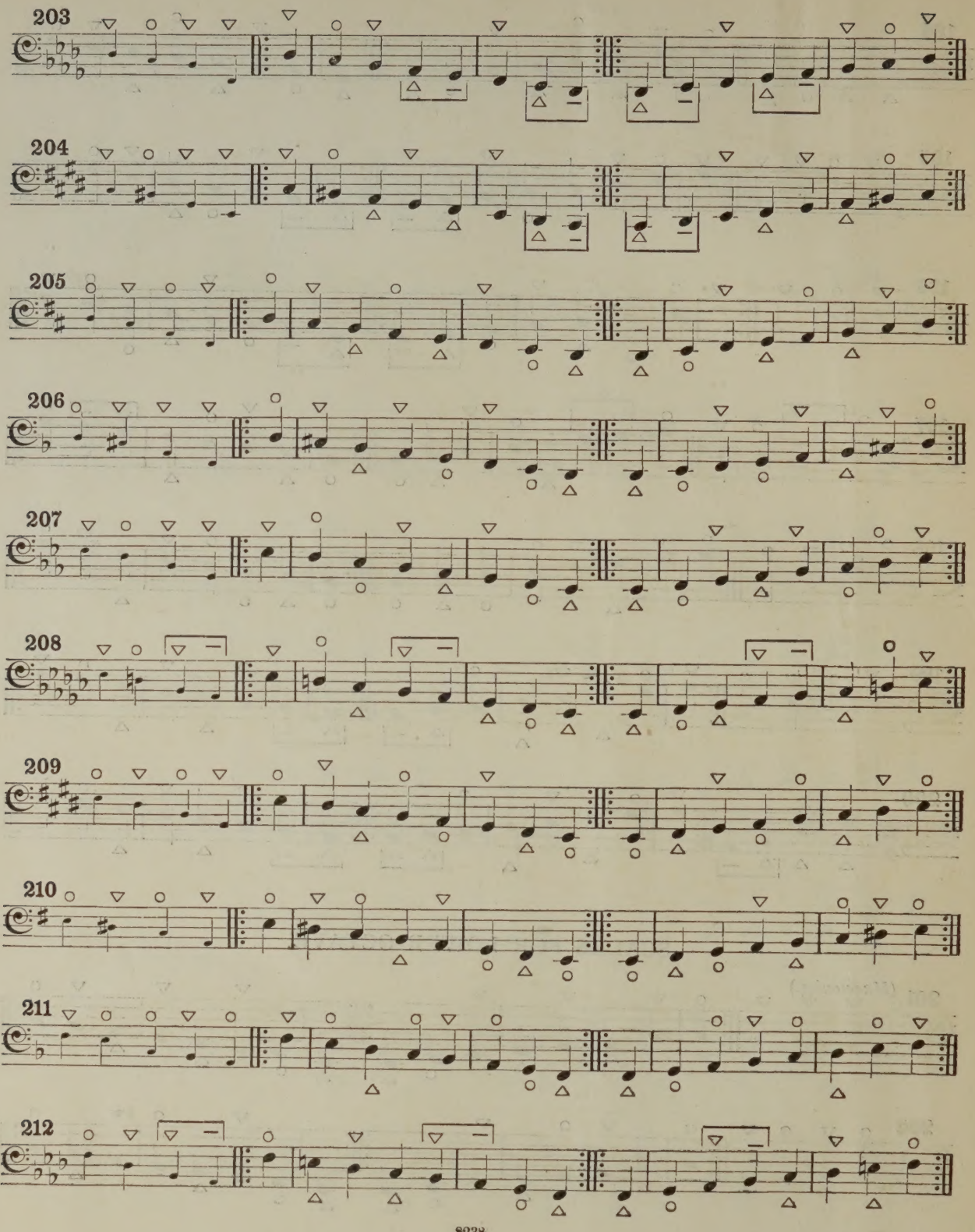
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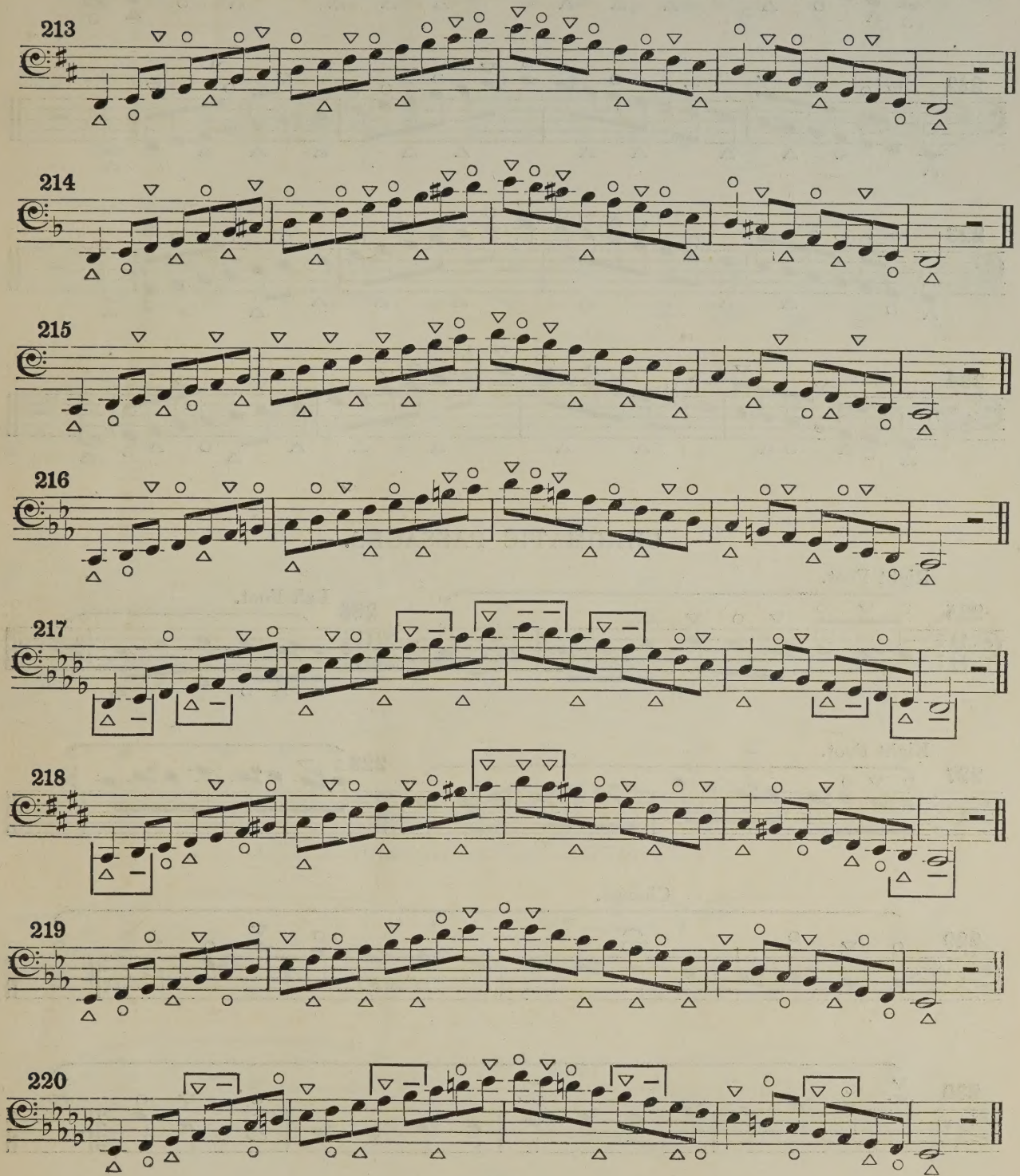
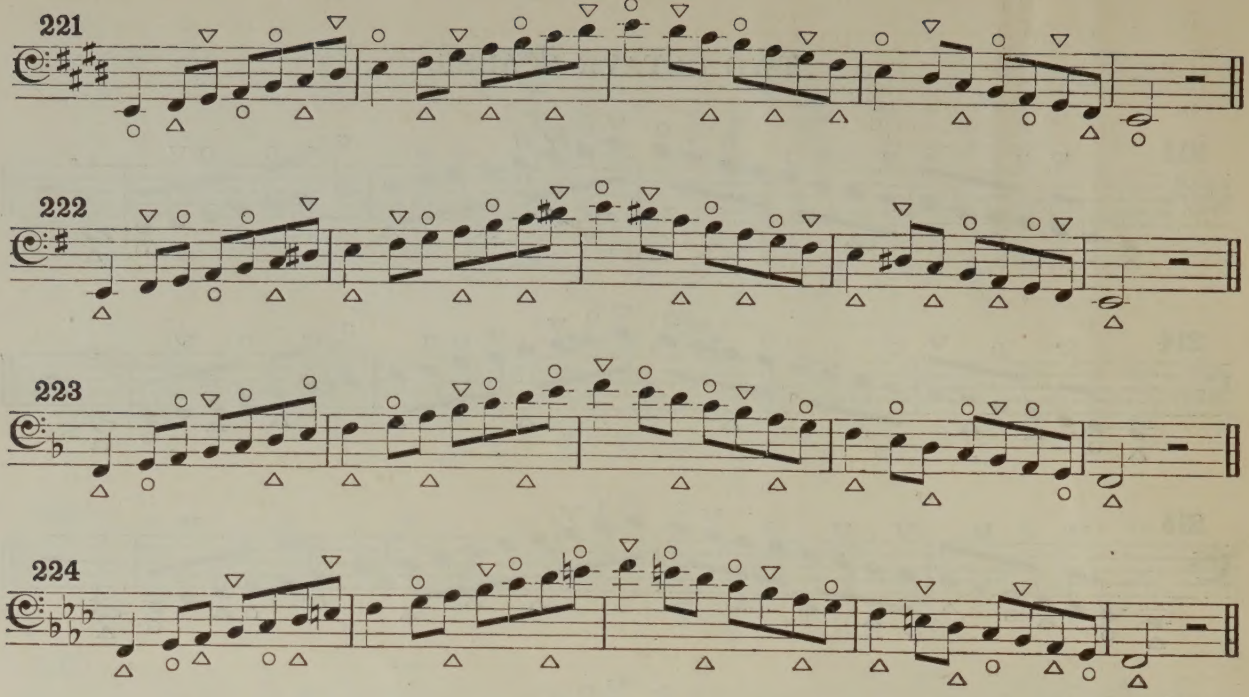
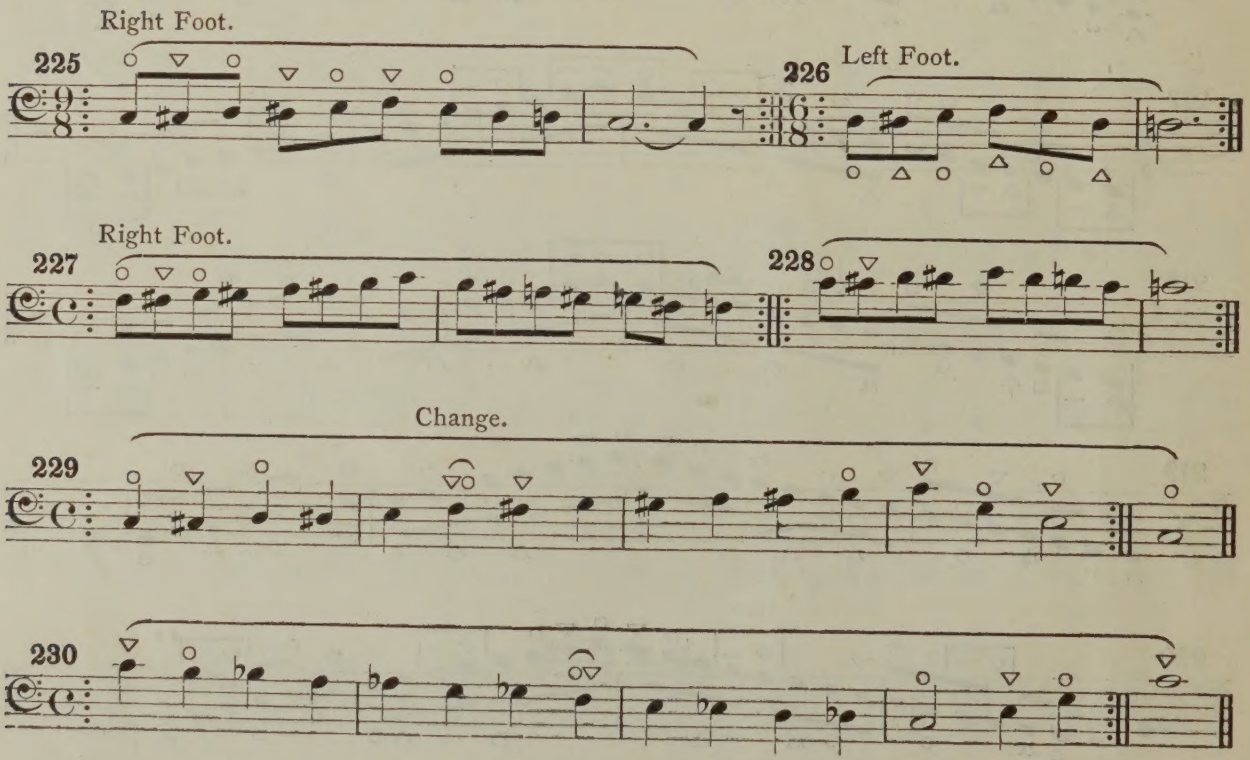
TWO OCTAVE SCALES.

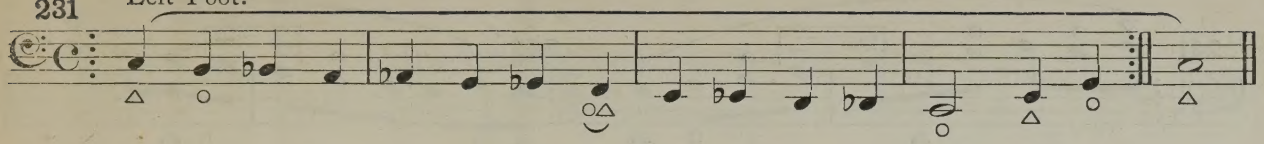




CHROMATIC PASSAGES.



231 Left Foot.



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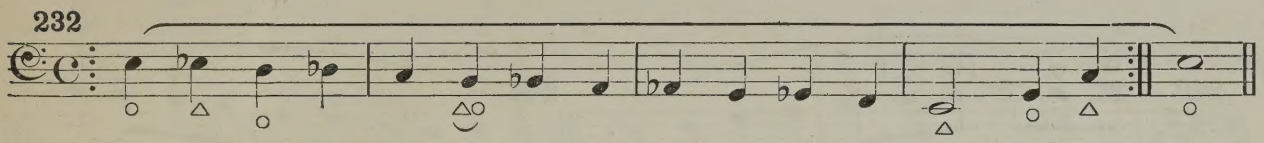

Double Scale.

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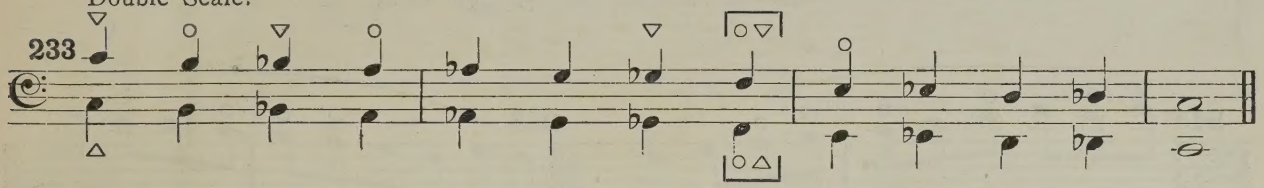

8 *ft.*

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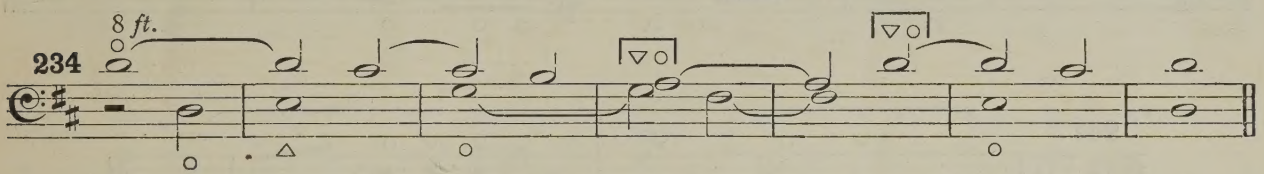

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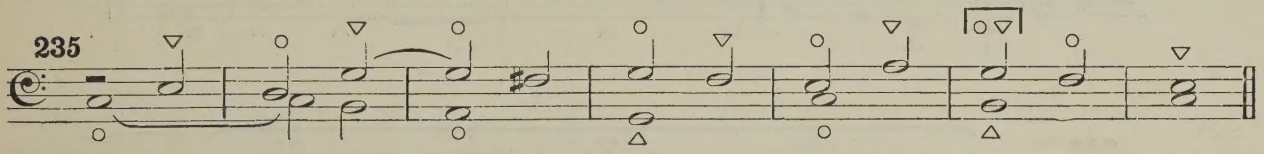

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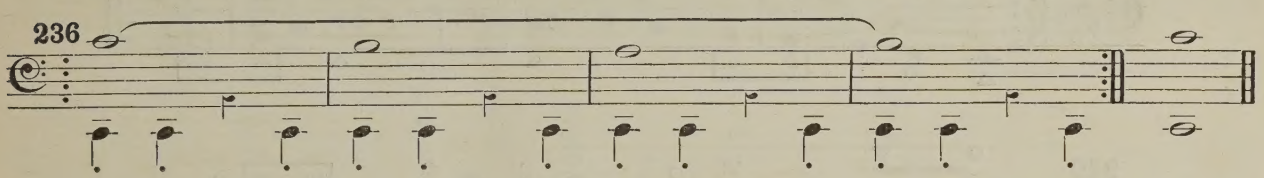

SCALE PASSAGES FOR BOTH FEET.

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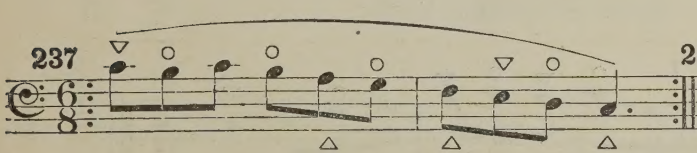

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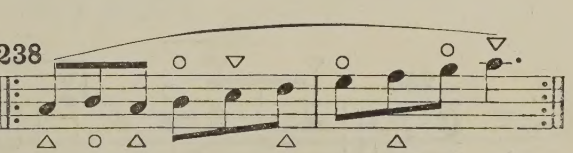

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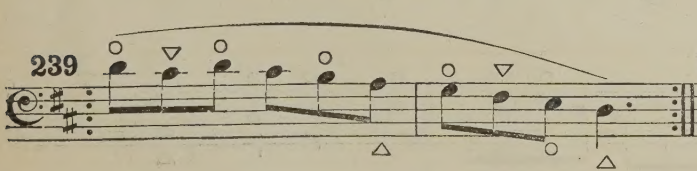

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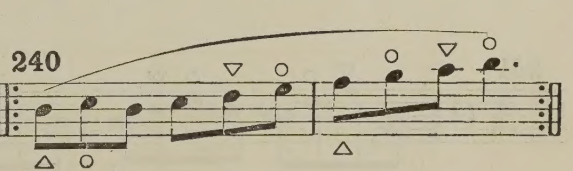

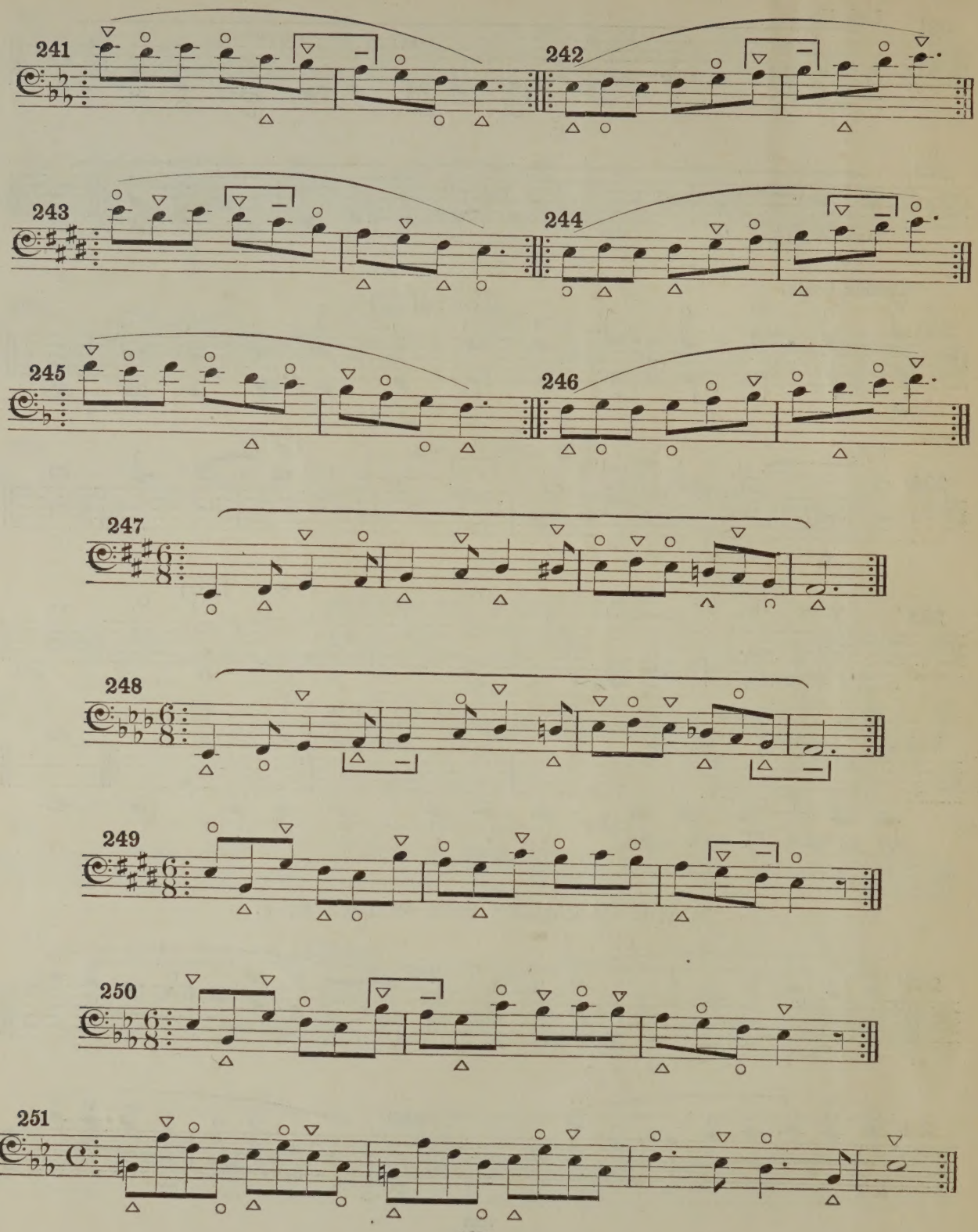
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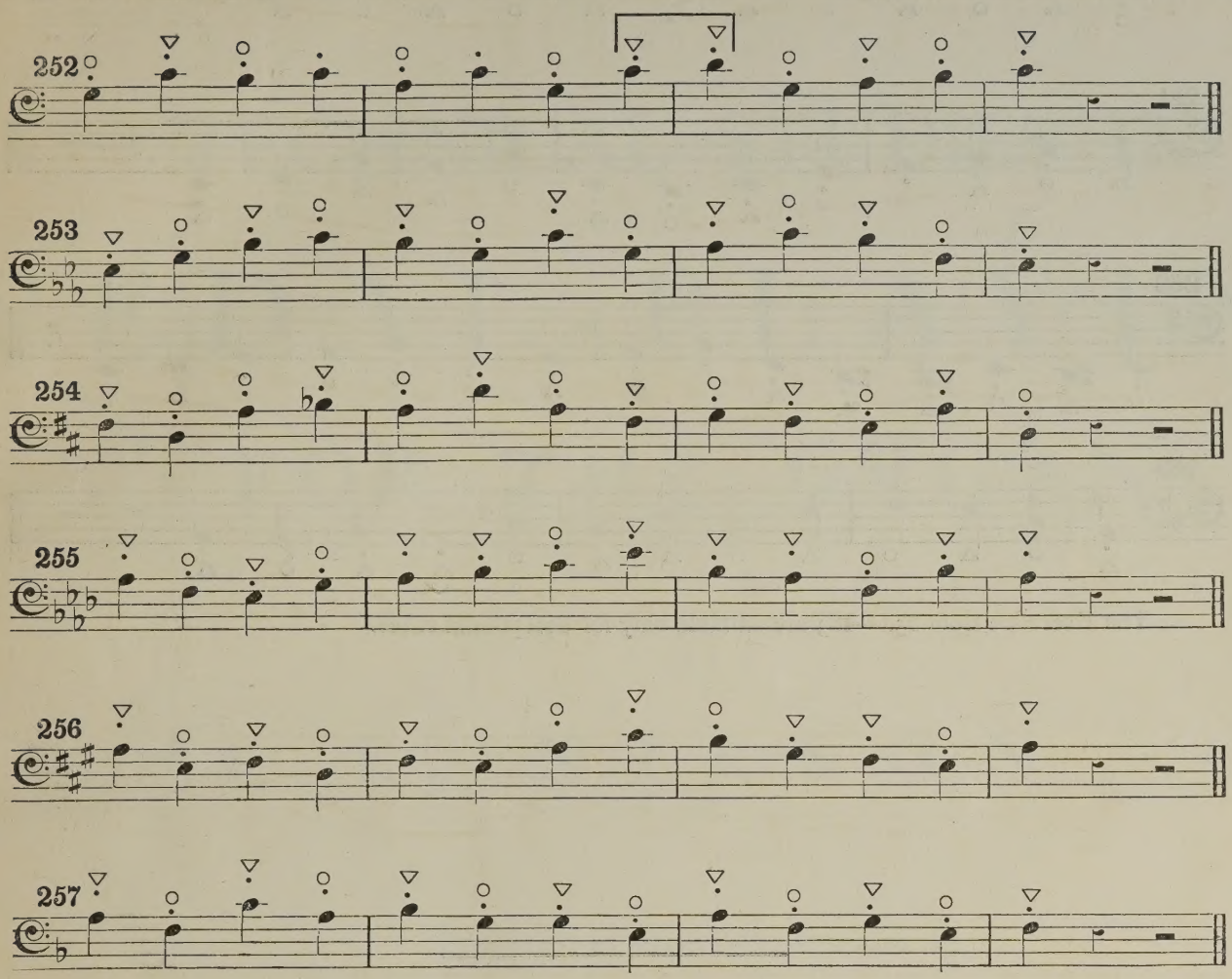
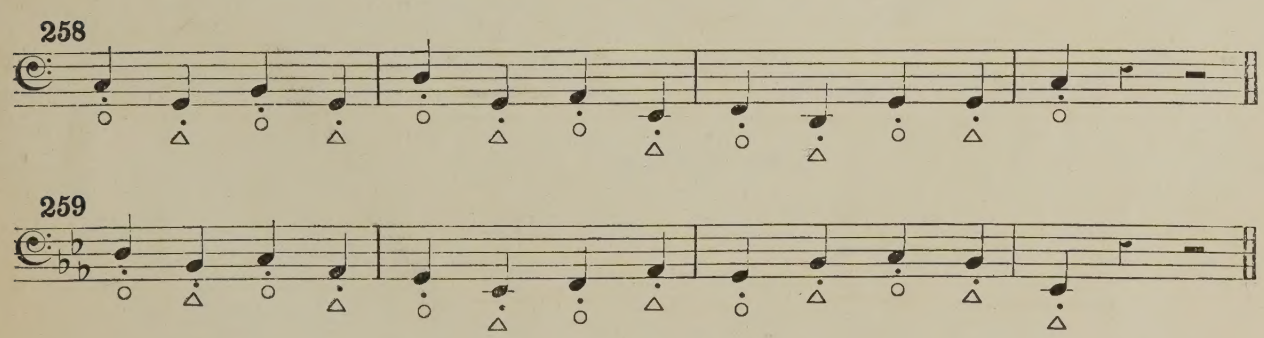
EXTENSIONS FOR RIGHT FOOT.



EXTENSIONS FOR LEFT FOOT.



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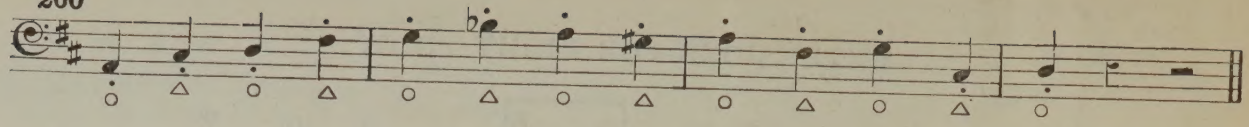

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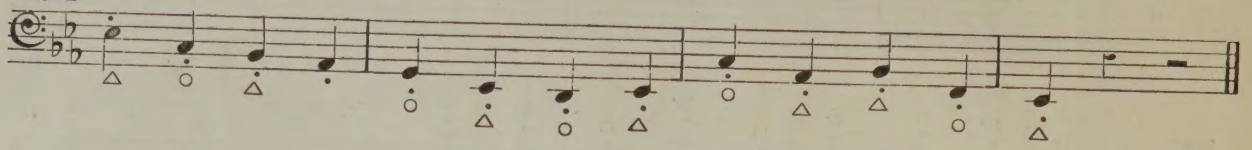

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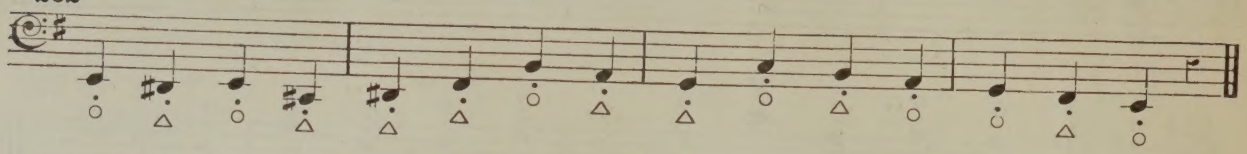

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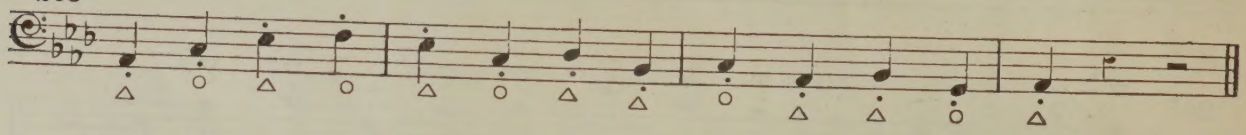

The Exercises from 252—263 are suitable only for exceptional cases.

A SYSTEM

OF

TECHNICAL STUDIES IN PEDAL-PLAYING FOR THE ORGAN

By

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Translated from the Swedish by

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To

MR. OSCAR BOLANDER

TEACHER AT THE

ROYAL ACADEMY OF MUSIC, STOCKHOLM

This Work is Dedicated

By his friend

THE AUTHOR

PREFACE

IN the course of a private teaching experience extending over several years, the attention of the author was early drawn to the deficiency which characterizes all contemporary instruction-books for the organ in the matter of pedal technique. In all the organ-schools consulted by the author he has found the pedal exercises wanting in system and completeness. For most musical instruments we can point to thorough and comprehensive instruction-books; but the majestic Organ, in spite of its widespread employment and boundless capabilities, is still without one, at least in so far as it should include a systematic pedal-school corresponding to its incomparably superior sister the manual-school, which has of late years profited by the improved facilities for a thorough education in pianoforte technique. Again, the highly developed piano-playing of the present day promotes, in a general way, rapid execution on the manuals of the organ, with results that would be called pleasing if the pedals had never been invented, and Bach and Händel had never lived; provided, of course, that the player has acquired a beautiful and flowing legato; and so we must not be surprised at the praise often lavished by the ignorant upon one or the other of these manual virtuosi; for if only he possess advanced pianoforte technique and a fair share of imagination, he has the whole art of modern organ-building at his disposal, ready to help with all its varied effects in hiding the gaping defects of his

Bach's time have made it their business to
pedal-playing out of its primitive confus
although Bach, Buxtehude and Händel,* in t
beautiful and expressive pedal passages, have g
the world unsurpassable examples of the mat
on which to base a well-ordered pedal techni
In spite, therefore, of the respect due to s
masters as Kittel, Rinck, Töpfer, Hesse, A
Vogler, and others, we are not entitled to g
them any credit for improvement in the sys
of playing on the pedals, as far at least as ca
judged by the organ-schools which they have
behind. Vogler, indeed, did not disdain in
notorious organ-recitals to let the pedals play
part of a pulping-mill and a thunder-mach
an absurd proceeding which is by no means w
out parallel in the organ-playing of our own

Among the many causes which han
pedalling from the player's side, by no means
least important are those which result from
technical difficulties of classical organ-music;
it must be admitted that to become a Bach-pl
of any account demands a pedal technique wh
is by no means to be acquired from any of
above-named organ-schools. A frequent resul
that organists often estimate the merits of class
compositions in a one-sided and partial man
each judging from his own artistic standpo
some have been found to liken the incompar
works of a genius like Sebastian Bach to a pa
church, and Adolph Hesse's trivial composit

* The author must refer to the modern editions of Händel's m

a cathedral (among gentlemen of this kidney ssical music will hardly meet with its rights); d if in addition we remark that most parish gans are unluckily furnished only with coupling- dals, and those of incomplete compass, on which obbligato pedal-part can be played, the above mparison between Bach and Hesse appears even ore crude and paradoxical; since, to speak truly, esse's organ-works (and the execution they de- nd) are mere trifles compared to the master- ces of the giants Buxtehude and Bach.

While the author has endeavored to show shortcomings of all the organ-schools be- eathed to us by the above-named masters, he ards it as a pleasant duty to acknowledge the gan-School of J. Lemmens as a welcome ception; for this work, breaking away as it es at once from the tramping method of former rs, may with justice be called a school of orm in pedalling. It would have been most irable that the pedal section of this organ-school should have been systematically extend to the stage of advanced technique; but since does, in spite of its limitations, indicate clea the new path, it only remains for the acquireme of a technique adequate to modern needs to fai fully follow and develop the sound principles execution which are revealed in Lemmens' Orga School.

Courtesy demands the explanation that, speaking of "the defective organ-schools of t older masters," we refer only to the pedal s tions. Manual-playing is properly taken care in all of them.

After unceasing thought on all these matte the author has decided to publish these "Tec nical Studies in Pedal-playing," in the hope th they may prove a help to all honest playing; bei convinced that those institutions whose aim is promote the study of the Organ will fully app ciate every honest attempt to further the obj they have in view.

THE AUTHOR.

PART I. INSTRUCTIONS

THE PEDALS AND THEIR EMPLOYMENT

By the Pedals (from the Latin *pes*, a foot; or, perhaps more correctly, from *pedalis*, of or belonging to the feet) is here signified that special department of the organ, invented by Bernard the German about 1450, of which the keyboard, having a compass of something over two octaves, is played with the feet, and has keys of a shape suited to this purpose. The true function of the pedals is to supply to the manuals an independent or obbligato bass part.

To employ the pedals, in season and out of season, as a mere strengthening part, to make them serve a base and homophonic drudgery, by doubling the manual bass in the octave below, is such a misuse, and shows such poverty of invention, that it ought to be avoided in all good organ-music, though the modern exponents of extempore playing resort to it only too often; there are, it is true, some occasions when this use of the ped impressive and quite justified, but these occur on accompaniments, especially in those of masses, cho hymns, and the like; never, or very rarely, in polyp or in independent organ-music. Excellent guic in this matter has been furnished us in the worl Buxtehude, Bach, Händel, Albrechtsberger, and o others. Unfortunately, the poor, starved, homopl use of the pedals has had a similar influence on th of organ-building, insomuch that builders have bee to adopt the equally poor, starved "coupling-ped which tend considerably to hinder the progress of s organ-playing. It is to be hoped that improved technique, honest playing and contrapuntal training before long effect the abolition of coupling-peda favor of the independent pedal organ.

GENERAL EXPLANATION

The student is advised not to accompany his pedal exercises in unison on the manual, as experience shows that this form of practising is not to be recommended.

To acquire at the same time certainty in attack and rapid execution, every note played by a foot not and it is most important that the angular movemen the feet, both from heel and toe, should be mad conformity with the diagonal lines marked across pedals, those in Fig. 1 being for intervals of a sec and those in Fig. 2 for thirds. The marks for th

Fig. 1.

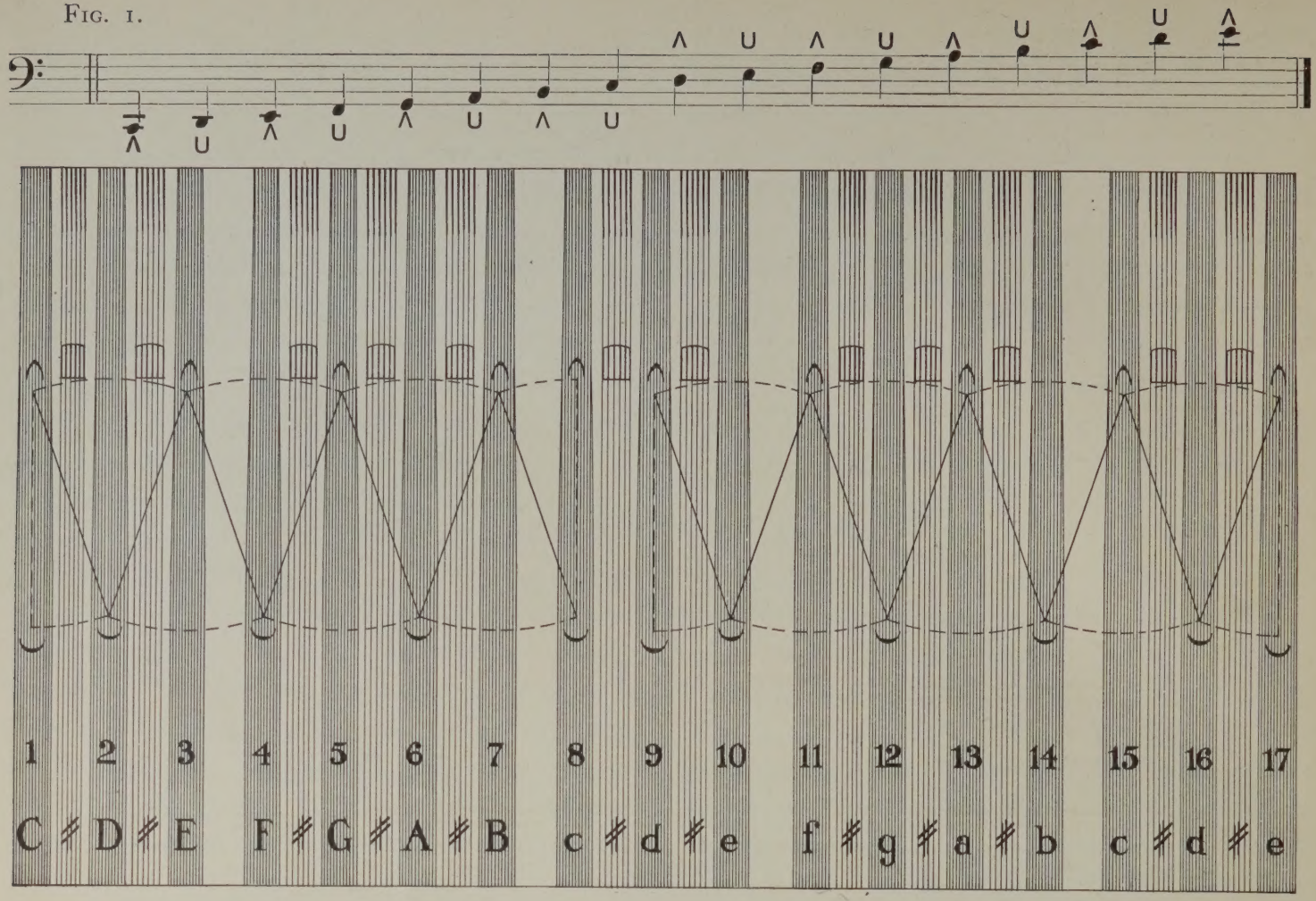
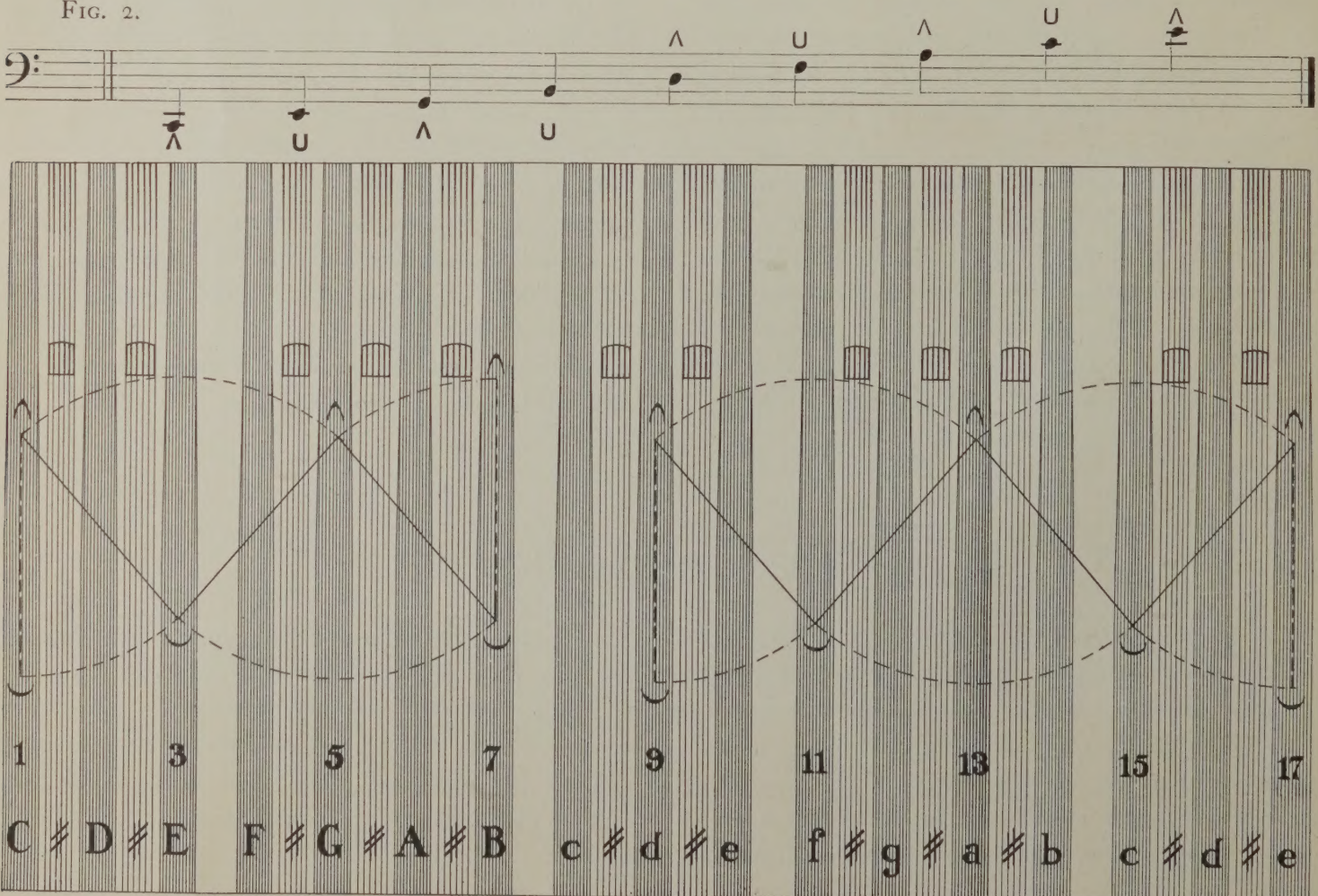

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
C ♯ D ♯ E F ♯ G ♯ A ♯ B c ♯ d ♯ e f ♯ g ♯ a ♯ b c ♯ d ♯ e

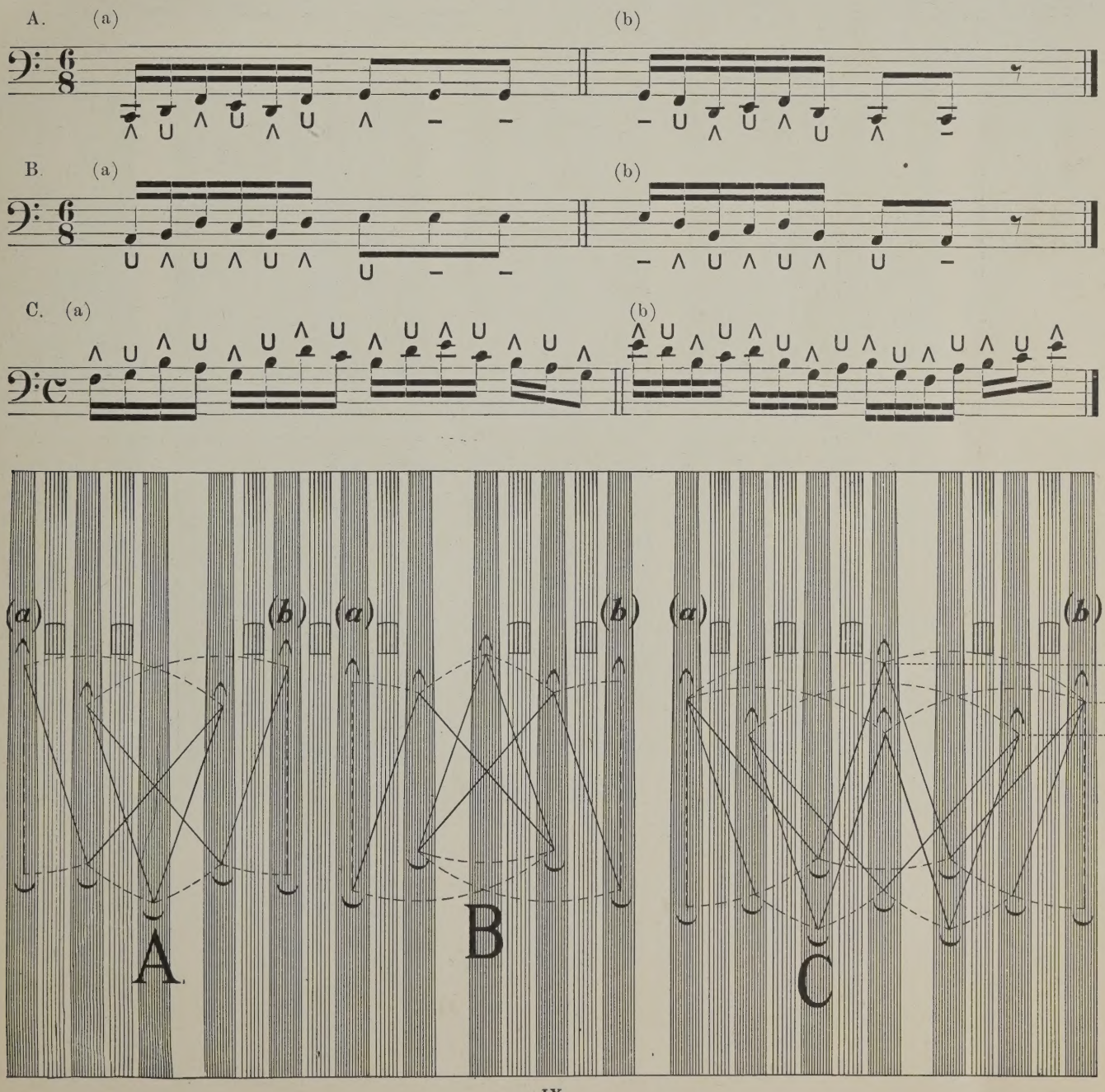
Fig. 2.


1 3 5 7 9 11 13 15 17
C ♯ D ♯ E F ♯ G ♯ A ♯ B c ♯ d ♯ e f ♯ g ♯ a ♯ b c ♯ d ♯ e

The difference between the angles through which the foot moves, in the intervals of a second and a third respectively, renders it plainly necessary to practise each of them separately with extreme strictness, taking great care that the angular movements (especially the more difficult) are performed slowly at first, but with unfailing correctness, in accordance with the positions indicated by the diagonal lines in the above drawings; and the student must work thus through the given exercises in progressive order; the pace may afterwards be gradually increased.

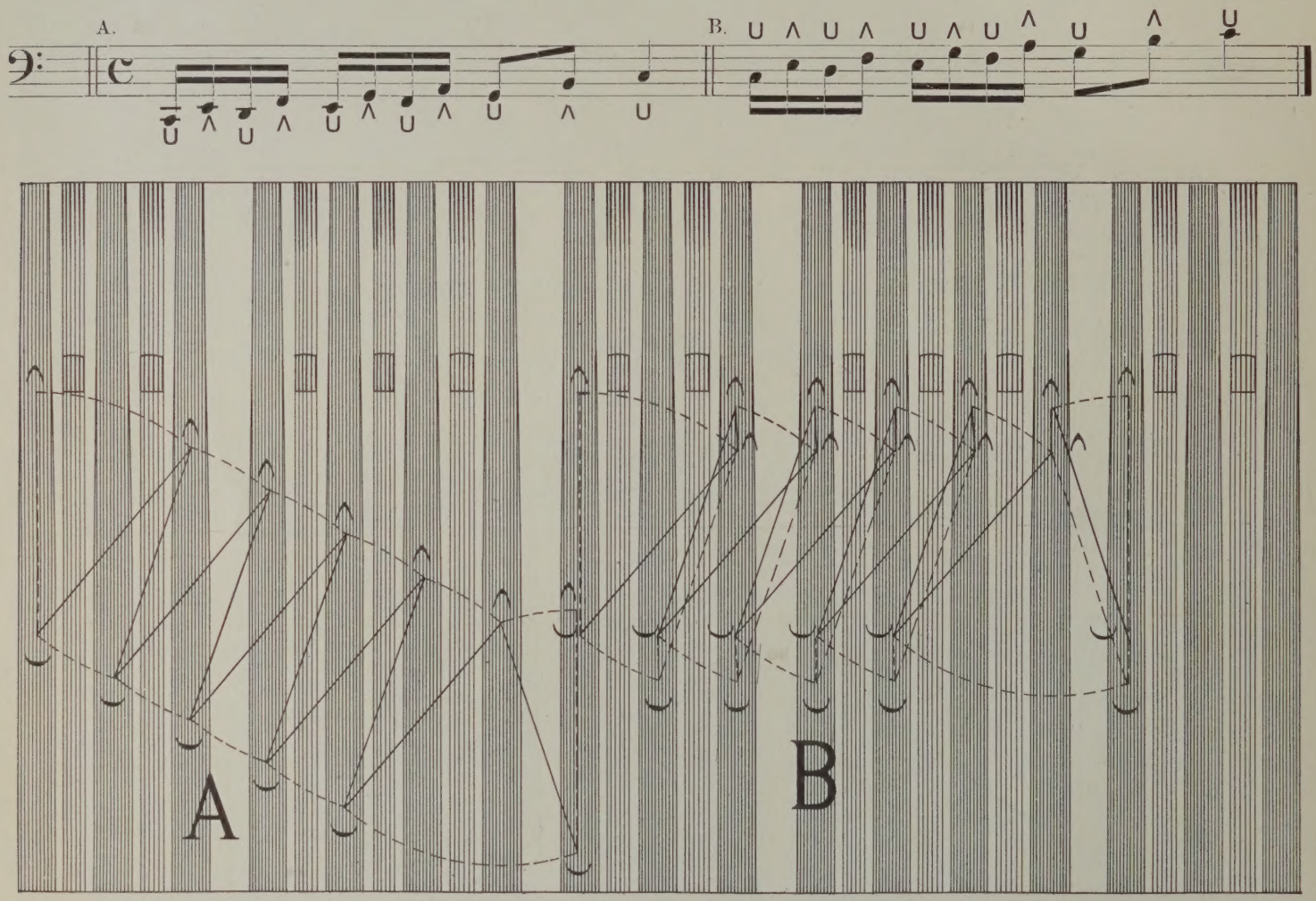
These angular movements for seconds and thirds, when combined in the same passage, form so important a part of the student's technique, that we here present several specimen diagrams, demonstrating to the eye the nature of this class of difficulty. Thus, in Fig. 3, *A* shows the appearance which a passage will bear when the first note is played with the toe; *B* gives the reversed appearance of the same figure, when the passage of notes printed below is commenced with the heel; while the more elaborate figure at *C* illustrates a more complex design produced by the mixture of seconds and thirds. The reverse of this figure *C* might be produced by beginning the passage with the heel, as *A* is reversed at *B*. In performing these mixed passages of seconds and thirds, the feet reach several different positions, some more forward on the keys, some farther back, owing to the different size of the arc traversed in executing the various intervals. In *A* and *B* two such different positions are reached; in *C* three, the third position being the farthest back.

FIG. 3.



Special attention must be paid to such sequences as those in Fig. 4 (which rarely occur except when playing in octaves), on account of the shifting of position which they involve. Fig. *A* shows the impossibility of carrying out such a passage without sliding the foot along the key; while *B* shows how this sliding is to be effected. And here also the figure will assume a reversed appearance if the passage is commenced with the toe instead of the heel.

FIG. 4.



On all keyed instruments there are certain steps from one key to another which are the same in size, though the musical intervals they represent may be different; this is seen in Figs. 5 and 6. Since the feet, unlike the hands, cannot enlarge or diminish their stretch, it follows that more importance attaches to observing the actual size of steps on the pedals than on the manuals.

FIG. 5.

Compare the printed notes with the pedal diagrams.

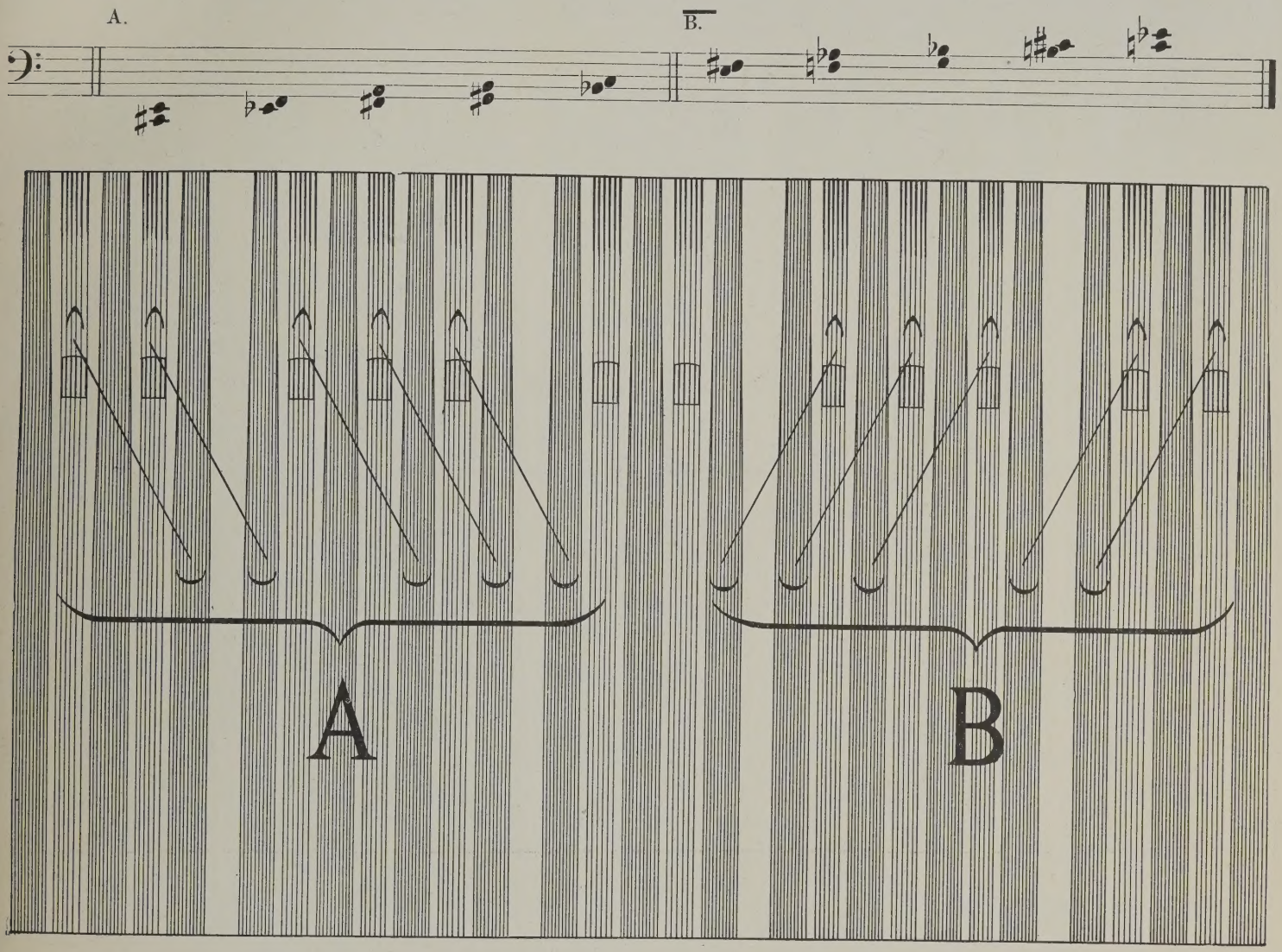
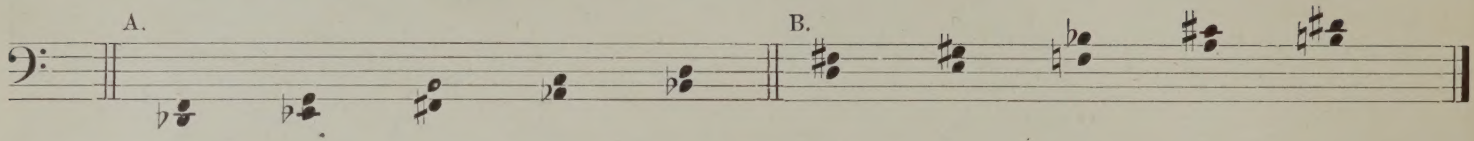
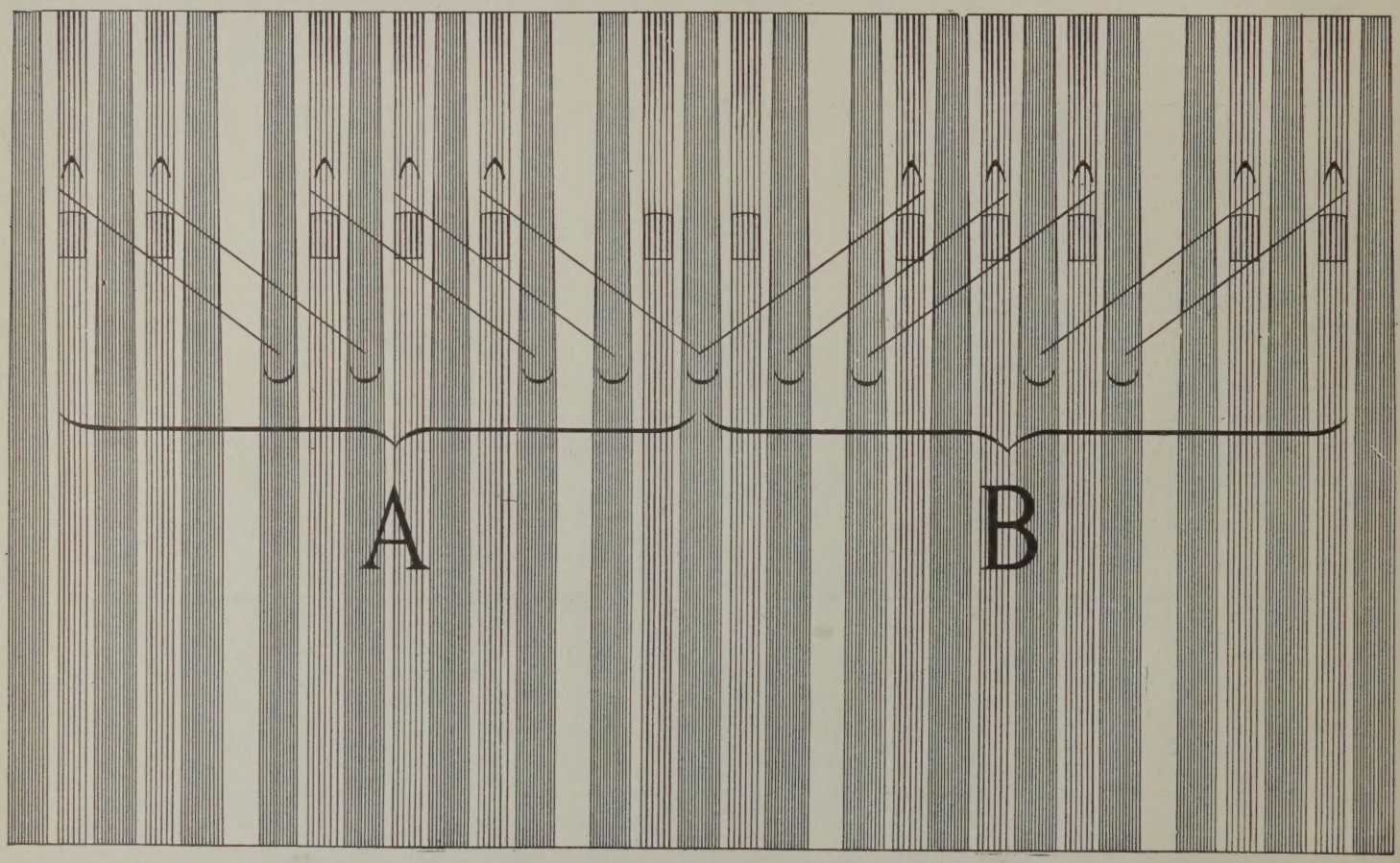


Fig. 6.

Compare the printed notes with the pedal diagrams.





In the pedal diagrams in Figs. 7, 8, 9, 10, are shown the movements of the feet in similar arpeggios in different keys. It must, however, be remarked that the example in Fig. 8 cannot well be executed on the pedal-boards now in use, since their construction, as before observed, is not adapted for perfectly systematic pedal-playing.

A comparison in each case of the notes with the pedal diagram will show the importance of the latter to the student of technique.

Fig. 7.

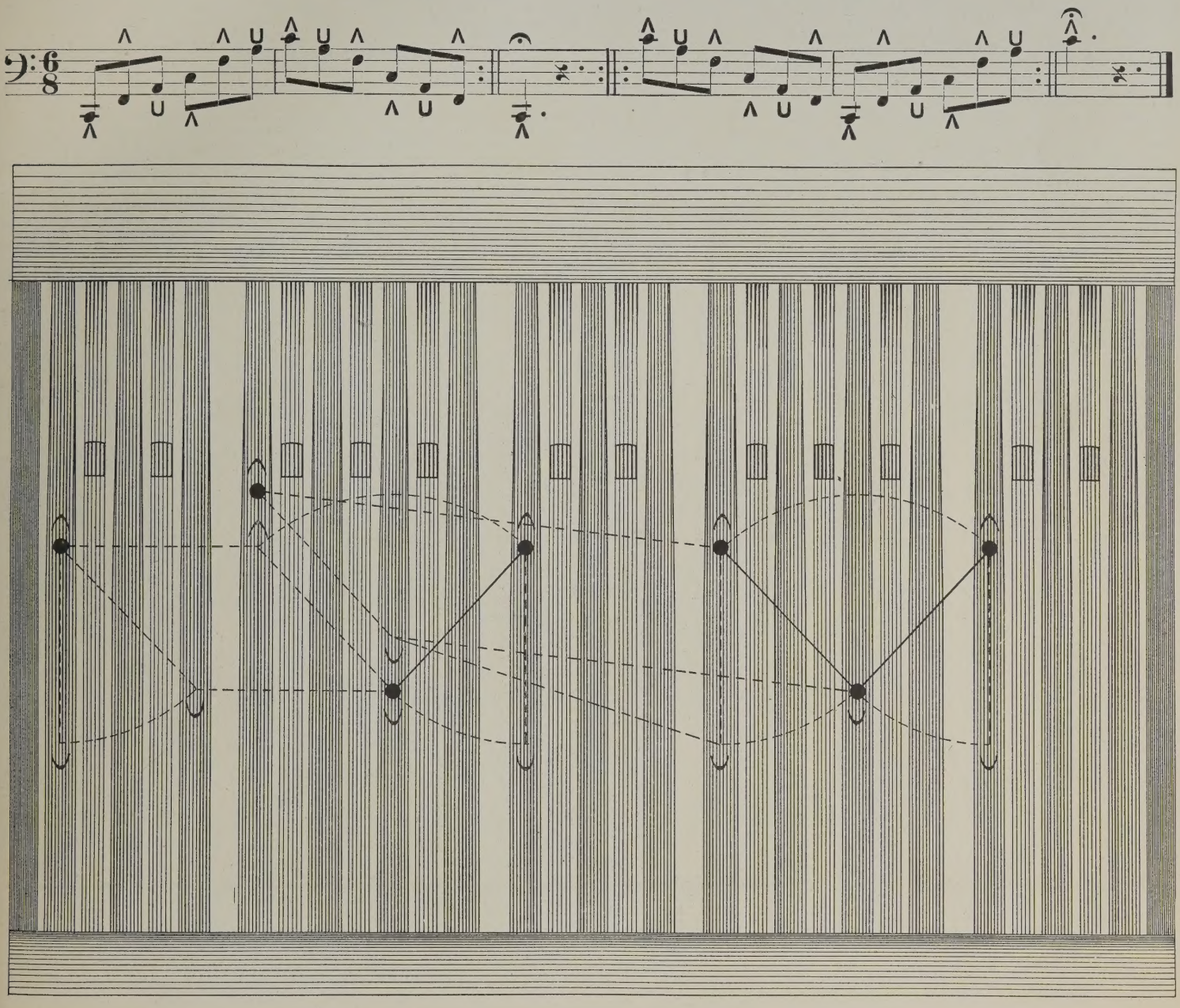
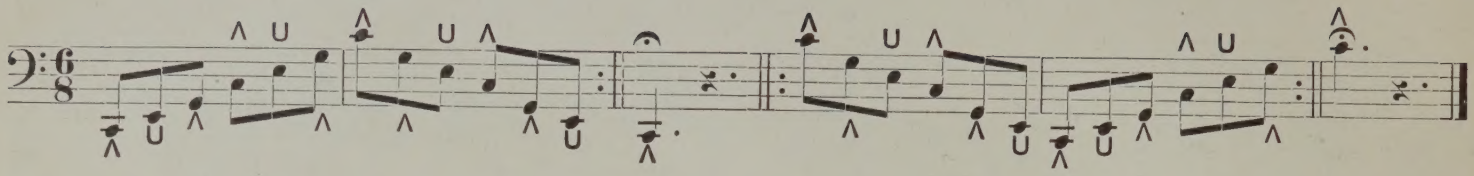


Fig. 8.



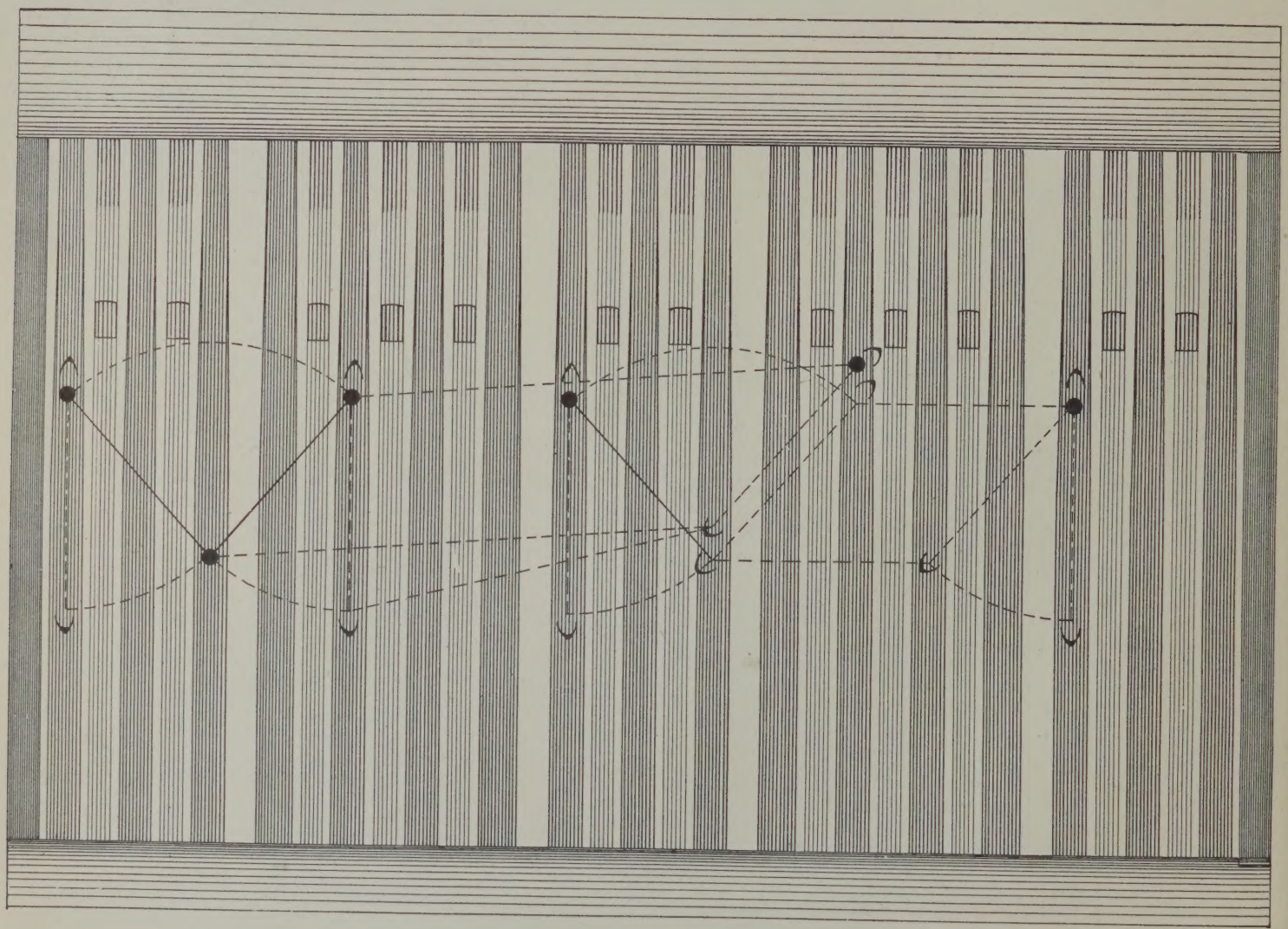
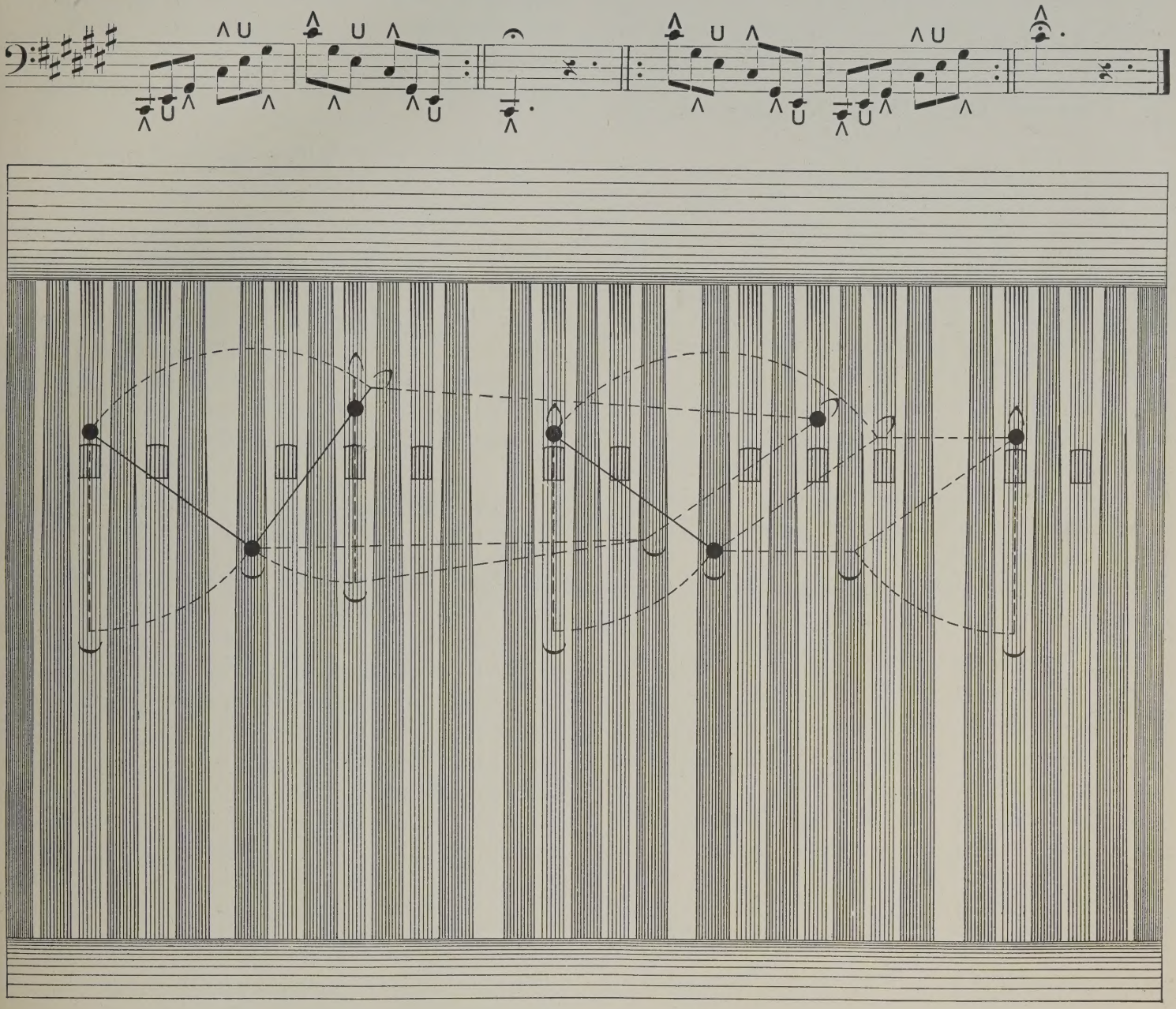


Fig. 9.



Many more explanations of the same character, which must be omitted here, are nevertheless of such value, that a future generation, more interested in the subject, will doubtless work them out and accord them due attention; but the examples given above will furnish a clear and distinct indication of the principles of a scientifically built-up pedal technique.

To keep the movements of the feet as small and as natural as possible is the first and most important condition of ready execution on the pedals.

EXPLANATION OF THE EXERCISES

SECTION I

A. Exercises in Diatonic Seconds, for Each Foot Alone

In these exercises, from No. 1 to No. 12 inclusive, the toe strikes the accented notes; and the exercises should be practised again, with the heel on the notes previously struck by the toe.

B. Exercises with Notes Repeated on an Accent

Exercises 13 to 18 include repeated notes, which the beginner is apt to strike noisily; this mistake must be corrected, and the exercises performed with such suppleness as to avoid making a clatter on the keys, and also to connect the notes into a satisfactory legato.

C. Exercises in which the Foot Advances by Taking a New Position

The exercises from No. 18 to No. 24 include repeated notes on which the foot advances into a new position. After each group of notes under a slur the foot is to be considered free; hence, the next note is to be struck with the foot parallel to the key, and only afterwards must the foot be turned sideways. These exercises, like those under *A*, must be repeated with the places of heel and toe reversed.

D. Exercises in Diatonic Thirds, for Each Foot Alone

These must be treated like the preceding exercises. It must be remarked that pedal practice demands shoes with specially light soles, and that heels of the French type, which are under the middle of the foot, are out of the question when performing such exercises as these.

The constant habit among beginners of commencing a passage with the foot diagonally across the keys has to be frequently corrected by the teacher. The attack with the foot askew is very seldom called for in passages for one foot alone; though in passages for both feet, the straight and the skew positions may both be used in turn with full justification, as will be explained later.

E. Exercises on Mixed Seconds and Thirds, for Each Foot Alone

In several of these exercises the foot has to slide a little in order to keep it in a middle position (see Fig. 3). The backward movement of the foot may, however, in a few cases be allowed to extend even to the third position on the long keys. Such exceptional cases as are shown in Figs. 7 and 9 (above) do not apply, as regards the position of the feet and the attack with the toe askew, to exercises like the present.

F. Chromatic Exercises for Each Foot Alone

The sliding motion which occurs in these exercises is from the sloping end of the sharp key to the next following natural key. Even here the correct design of the pedals is of importance; for if the sharp keys are cut off square at the end, the keys are more likely to rattle than if their ends are sloped. If the pedals are carefully bushed with felt, and their surfaces are even and smoothly polished, it will be highly conducive to noiseless execution and easy sliding from one key to another.

SECTION II

A. Exercises for Both Feet Together

The aim of these exercises in contrary motion with varied footing is partly to promote increased facility in what was acquired previously, and at the same time to prepare the way for what is to follow.

It is especially important that these exercises should not be laid aside until a rapid tempo has been attained with every variety of footing.

B. Solid and Broken Octaves

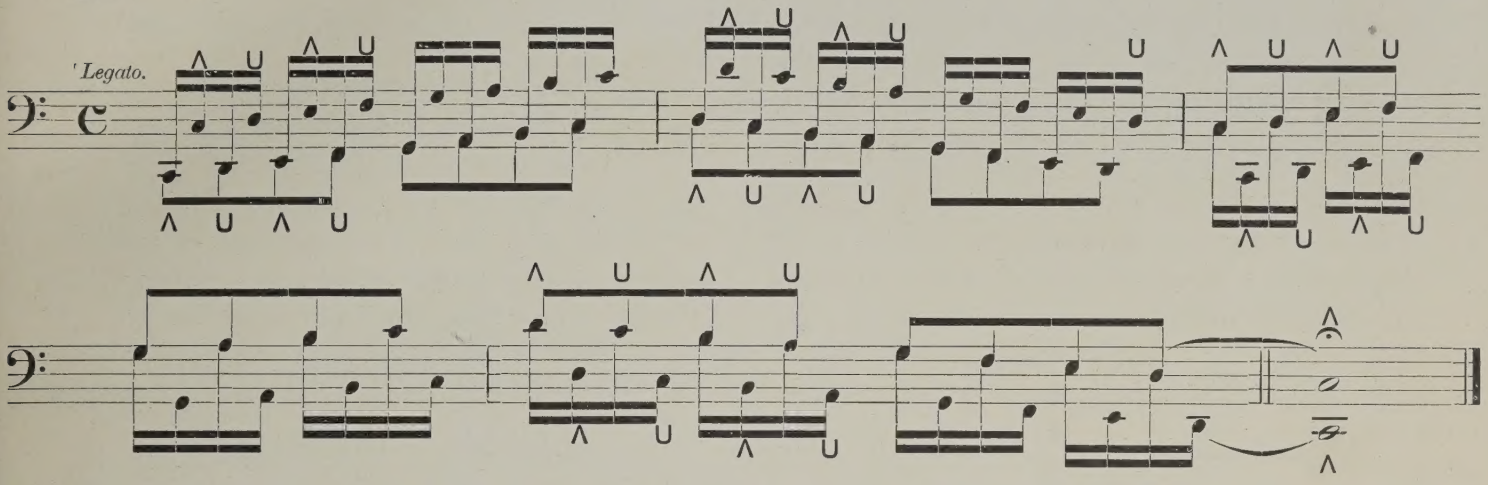
A difficulty occurs here which is not so easily surmounted as might be supposed at first sight. For here, as in all octave-playing on the pedals, the rule holds good without exception, that the first attack of the feet, and the subsequent side-movements, must be symmetrical and simultaneous. In other words, whether the heels move or the toes, they must at all points in the arc which they describe keep precisely the same distance between them. This rule applies not only to exercises in solid or simultaneous octaves, but in a still higher degree to those in broken octaves; for by this method of practice, conscientiously carried out, the student may acquire a technical facility which will exceed all his expectations. The same rules apply equally to thirds and sixths, both broken and solid.

To ensure retaining the regularity of the motions of the feet when playing broken intervals, it is recommended that the student go through the solid intervals of the same kind every second or third time, and pay good heed that the angular movements of the feet are simultaneous in the broken no less than in the solid intervals.

The student is advised to do his utmost to secure a true legato; such a legato, that is, as results from pressing every key down to its full extent, and joining every sound in the legato phrase closely to the next one. There is another kind of legato, which may be called a light legato, which floats, as it were, on the top of the keys, and results in pressing them only halfway down; and it is much to be deplored that this half-legato, which produces an inferior tone from the organ, has often become a deeply rooted habit, under lazy and thoughtless teaching. Without a firm legato, true organ-playing becomes inconceivable.

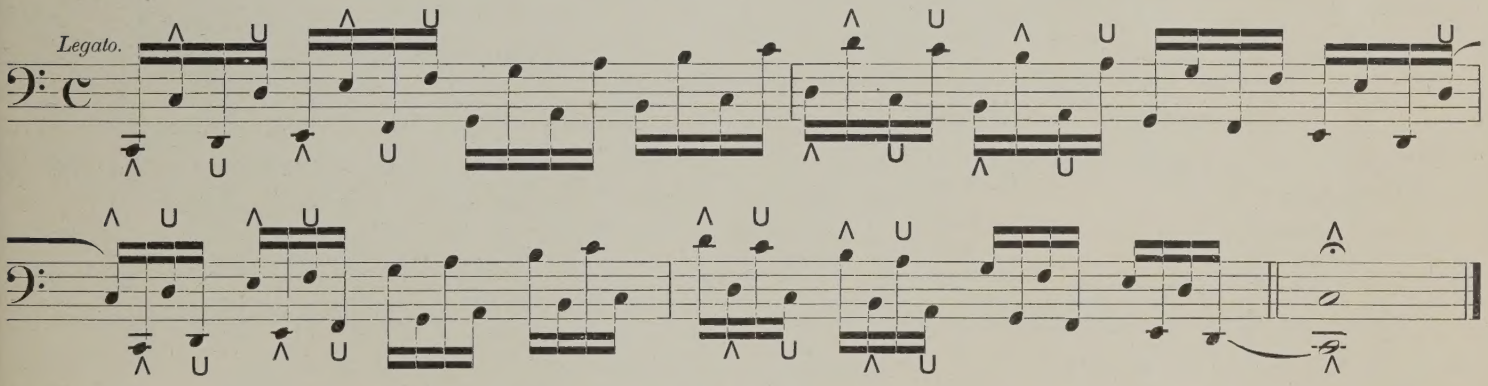
It is likewise to be observed that the student, before he has mastered a true legato, manifests at first a tendency to hold the accented notes beyond their proper length; this error is illustrated in full in the following example:

BAD:



whereas, when the above fault has been corrected, the passage will regain its original appearance, as shown below:

GOOD:



The absolute superiority of the method proposed in the present work over the older ones does not lie in the construction of the exercises so much as in the manner of practising them. The one aim of the technical directions given in the whole of this Part is to attain, by means of the smallest and most natural movements, to a smooth execution, to accuracy, to rapidity, and to a true legato.

SECTION III

This Section, which consists of free adaptations from the previous one, attempts to show how and when deviations from the previous rules may be allowed.

Such a case occurs in Ex. *A* 3, an exception in footing, inasmuch as the feet move on one degree to a new position before they find it necessary to use any angular motion. That this movement is an advantageous exception to the rule can be proved experimentally by a thorough trial of both methods.

When the pupil reaches Exs. 15 and 16, he will find further proofs of the wisdom of such exceptional footings, though they by no means invalidate the general application of the original rule.

In *B* there likewise occur footings which involve a mixture of angular motion with change of position; and Exs. *C*, Nos. 27, 28, 29, are planned for acquiring accuracy in moving the whole foot onwards. Here the pupil is apt to swing his feet about needlessly, a fault which calls for correction.

In Exs. 30, 31 occurs mixed legato and staccato, in conjunction with a mixed footing partly of angular motion and partly of moving the whole foot. The staccato must, like all organ staccato, be so performed that the keys are pressed down as far as they will go, and the legato (as before mentioned) must be a true legato.

Section *D* consists entirely of exercises for changing the feet on one key, in passages both of single and double notes; the clearness of such passages, however, depends much upon the proper construction of the pedal-board. Such exercises are intended merely for the improvement of execution, for no good organ-music would contain passages like these.

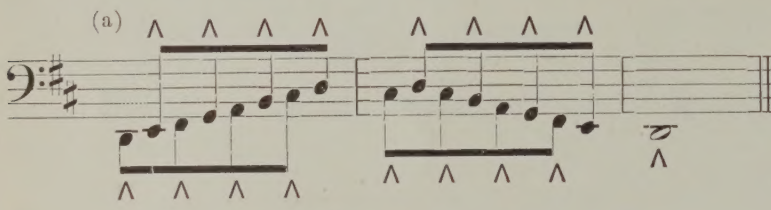
SECTION IV

A. Major Scales

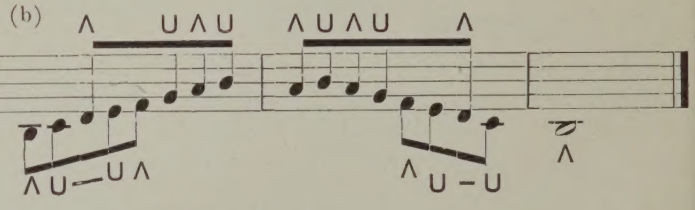
The footing of these, as well as of the minor scales, is, in the main, the same as that employed by J. Lemmens in his Organ-School; but since the pedal scales in the present work have been considerably extended in length by varying their outlines, in order that the pupil might not lay them aside too soon, it has been found necessary to modify the footing in several places.

It will, therefore, be both useful and necessary to give a few analytical demonstrations of those alterations of footing which have been suggested by experience as conducive to improved technique, together with some remarks on the footing of scales in general.

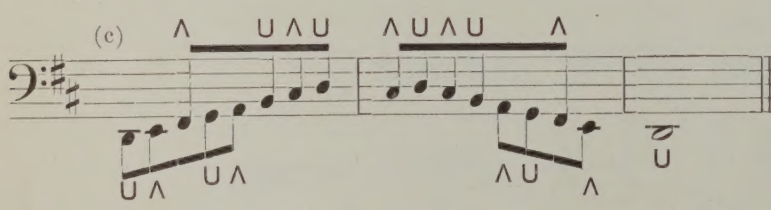
(*a*) Old Footing.



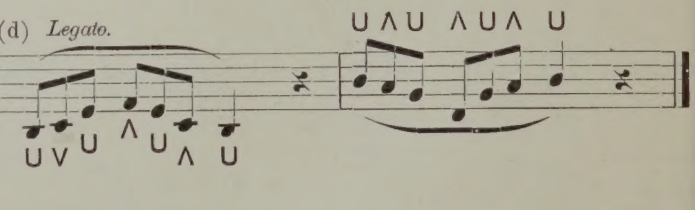
(*b*) Lemmens' Footing.



(*c*) Author's Footing.



(*d*) Demonstration.

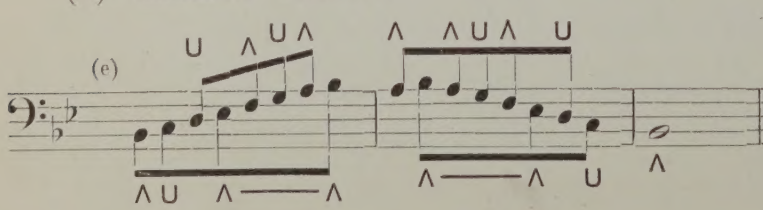


That the footing at (*a*) has come to be regarded as a mere solecism in the light of our ideas, is due to Lemmens and the reform founded by him upon truth and nature; for, had it not been for this pioneer of truth, the adepts in the old double-shuffle footing might have rested content with their unintelligent method for a long time to come. Lemmens' footing is shown at (*b*) and the author's at (*c*).

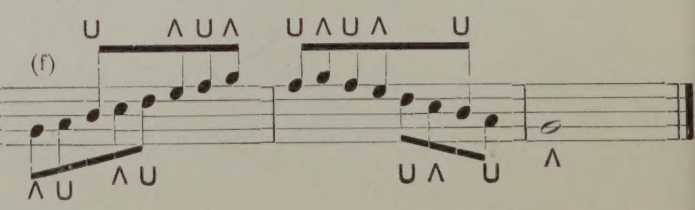
The footing at (*c*), which provides for a strict legato not only for the scale in its entirety, but also for the part played by each foot separately, as shown at (*d*), is alone adapted for rapid execution.

As another example of the improved footing, the scale of B flat major is given:

(*e*) Lemmens' Footing.

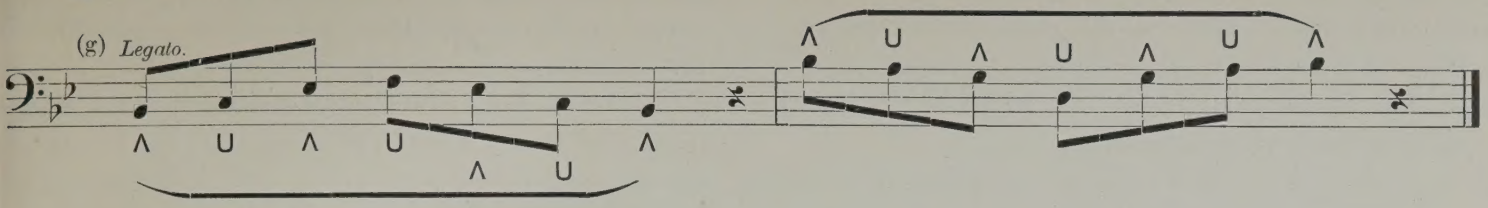


(*f*) Author's Footing.

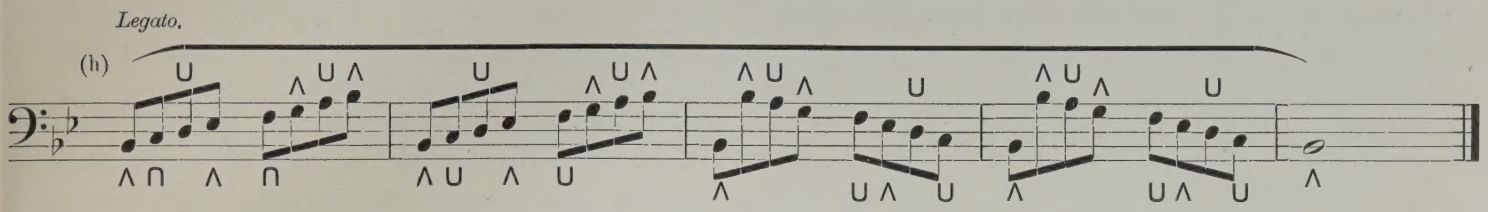


(The old footing is not given, as being altogether impracticable.)

(*g*) Demonstration.



(*h*) Demonstration.

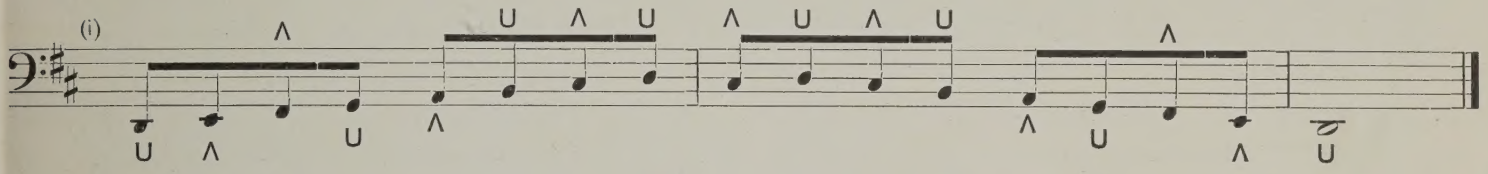


Lemmens' footing is shown at (*e*) and the author's at (*f*).

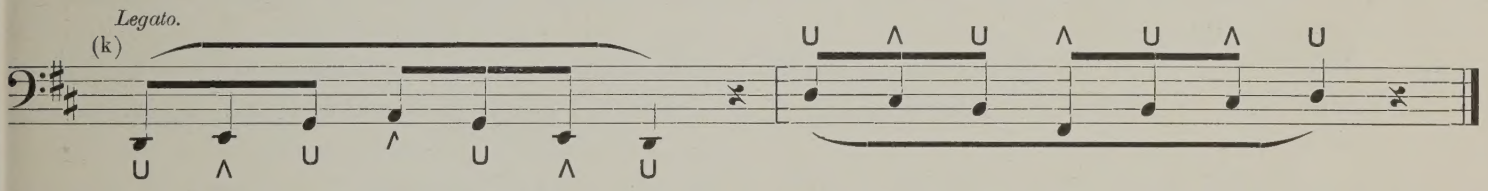
The footing at (*f*) is not only calculated for strict legato, as proved at (*g*), but also affords variety in scale-practice, as shown in the examples at (*h*).

Having adopted a certain form of scale-passage as the normal formula for practice in all keys alike, we have next to determine the footing for each scale as framed on this formula; but the footing will be subject to partial modification in cases where the scale is altered or extended so as to differ from the formula, as in the following example:

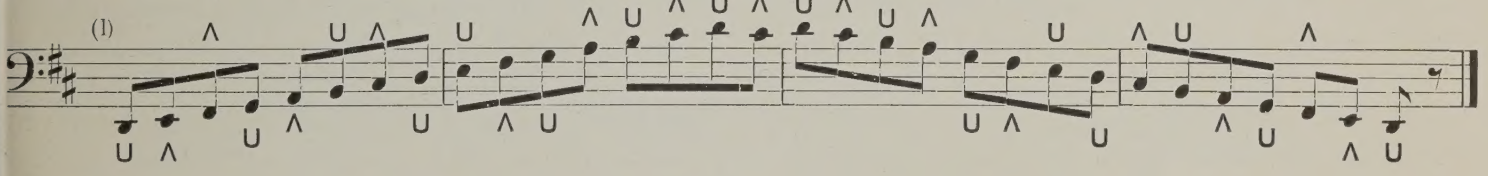
(*i*) Normal Scale-formula.



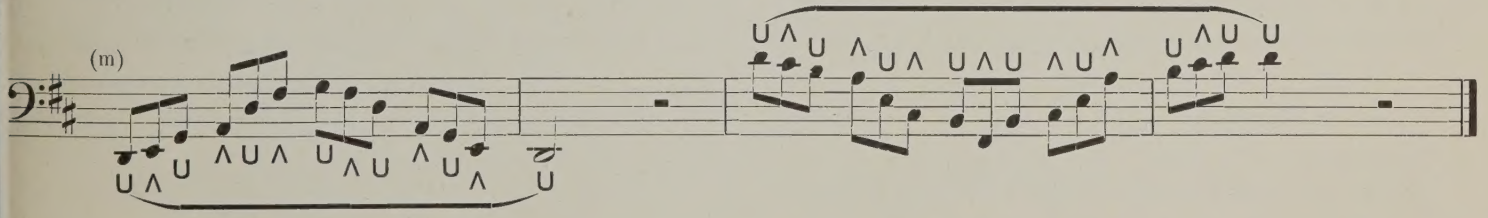
(*k*) Demonstration.



(*l*) Extended Scale.



(*m*) Demonstration.



Both in scales and in other melodic passages, that footing is to be preferred which will give the closest legato for the separate part played by each foot; and this should be, for every thoughtful pupil, the universal principle on which to base a reliable pedal-technique.

There is one other movement of the foot, which has been purposely left till the last; namely, gliding from one sharp key to the next. These gliding movements must be practised in such a way that the attack on the second key, on to which we glide, is, if possible, made

as firmly as any other attack. Sliding movements of this kind are, in spite of the most diligent practice, always uncertain in rapid passages. An improved construction of the pedals is the only means by which they could be rendered superfluous.*

B. Melodic Minor Scales

The technical principles of construction and footing in these scales is in the main the same as in the major, and thus a description of them is superfluous.

C. Harmonic Minor Scales

As the independent nature of these scales is much contested, the author intends to avoid entering into any details concerning them but such as bear upon Technique; in this respect these scales are well worthy of consideration.

That the pupil may accustom himself to the recognized form of this scale, all accidental chromatic signs are omitted, and are replaced throughout, in the signature, by those which by themselves proclaim the construction of the scale.

In conclusion, the author feels bound to exhort the student who seeks to progress in pedal-playing, by help of these studies, to ponder carefully the above technical rules and demonstrations, that he may, by means of them, and still more by the use of his own intellect, become master of a method eminently based upon nature and upon scientific truth; for the exercises alone will not suffice, since these present only a series of passages for practice with marks for footing, but do not teach how to practise the passages to advantage.

* Translator's Note.—This "gliding" is performed as follows: While the foot is on the first key, raise slightly that side of the foot which is nearest to the second key; then, if the pedals are as smooth as they should be, it is easy to slide the foot from one to the other.

A FEW WORDS ON THE MUSICAL EDUCATION OF ORGAN STUDENTS

The student who is gifted with musical talent and a turn for playing the organ, and who wishes to train himself in that art, must as early as possible work through the most important pianoforte studies, and only after this may proceed to the special study on the organ of the grand style of music which belongs to that sublime instrument, for which no piano studies, even those of the most general application, are sufficient.

It will be of great use to the intending organ pupil, if his future study of the organ is so far taken into account that, during the latter part of his pianoforte studies, his teacher on that instrument will give the preference to work in the polyphonic style.

This, however, is only that he may understand and become habituated to the independent motion of parts which belongs to polyphonic music; it is by no means advisable (though we find it done occasionally) to practise organ-music on the piano, making use of the strict legato, the substitution of fingers and other characteristics which are called for only on the manuals of the organ.

Pianoforte-playing must on the one side preserve its genuine independent style as much as organ-playing on the other; especially as the organist, for economic reasons, is often forced to rely more on the former than on the latter.

Since it is the privilege of the organist more than of any other musician to be the exponent of the maiestic Fugue to a public whose musical culture is ever increasing, it is only reasonable that these expounders of fugue should, during their student days, enjoy a thorough course of instruction in harmony, counterpoint, canon, and fugue, and should diligently apply themselves thereto. The organist with whom this knowledge is lacking can never turn to full account his technical powers, however great they may be; while his conception of his music, if he lacks musical scholarship, can never show a spark of ideality.

Besides the technical and scientific training which is demanded by the organ, with its elaborate and scholastic style of music, the student must also make a study of his grand instrument itself; and this must by no means confine itself to a mere knowledge of the pitch of stops as reckoned in feet, their qualities, titles, and powers alone or in combination; but must extend to the construction, action, and material of the pipes, the windchest, the reservoirs, bellows, windtrunks, couplers, and pneumatics both of manual and pedal, both of draw-stop action and key-action.

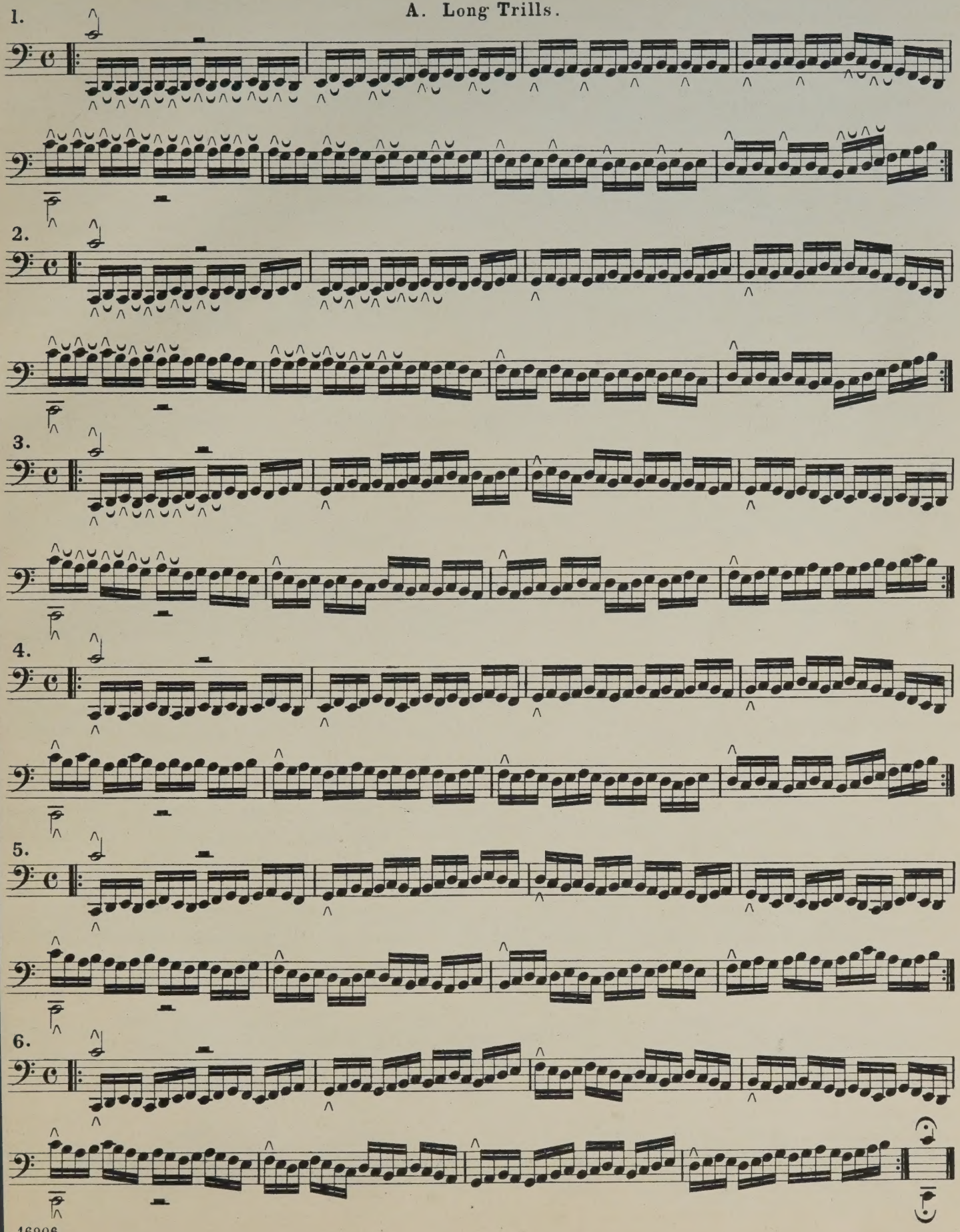
Every organ candidate who is thoroughly equipped in the above subjects possesses a musical education which will make him a credit to the institution which grants him his degree. Such a player may rightly be placed in charge of a really fine organ; for the art of which he is master will return a full reward to the congregation which honors him with an appointment.

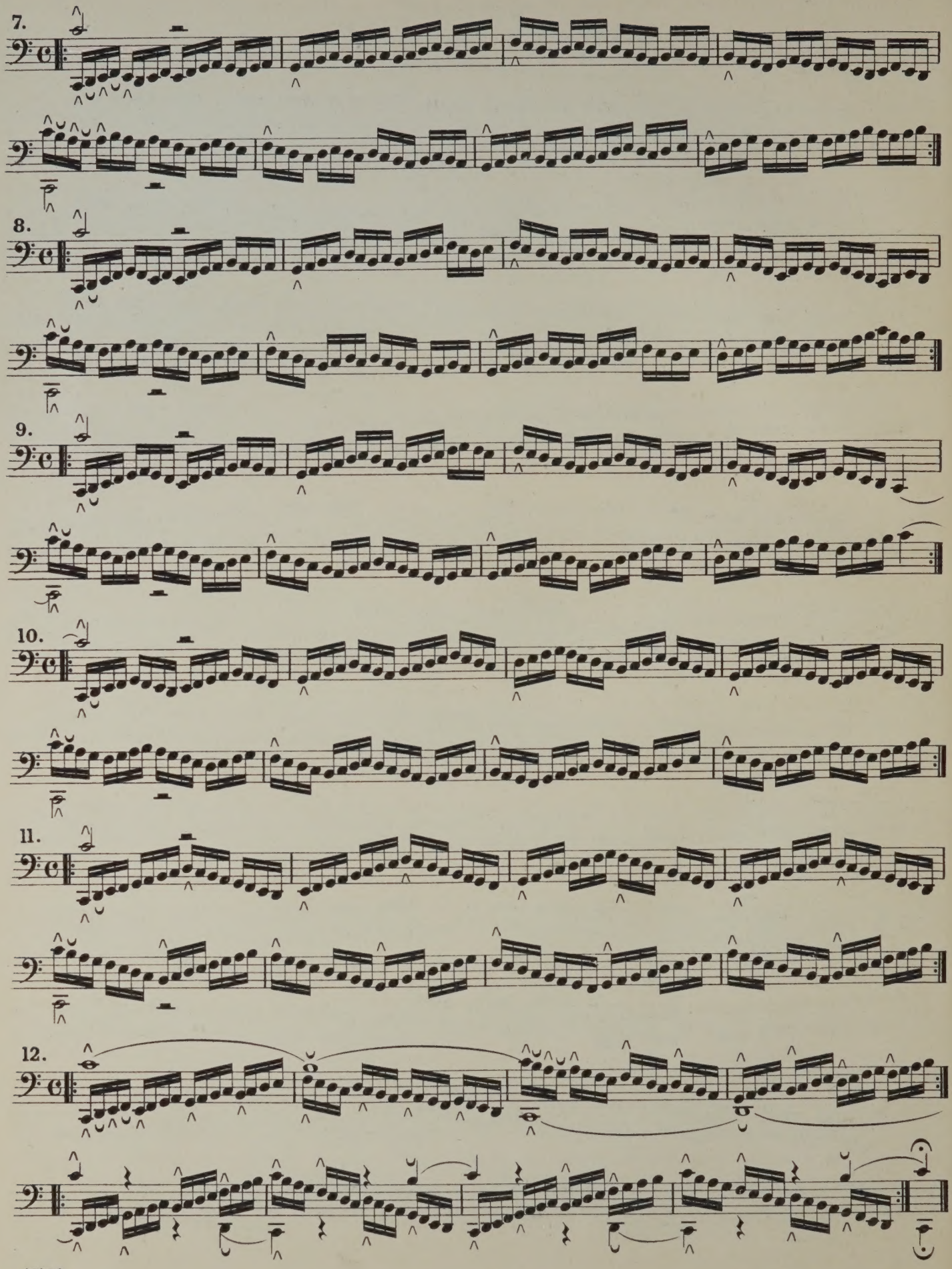
Part II.

Section I.

Exercises for Each Foot Alone.

A. Long Trills.

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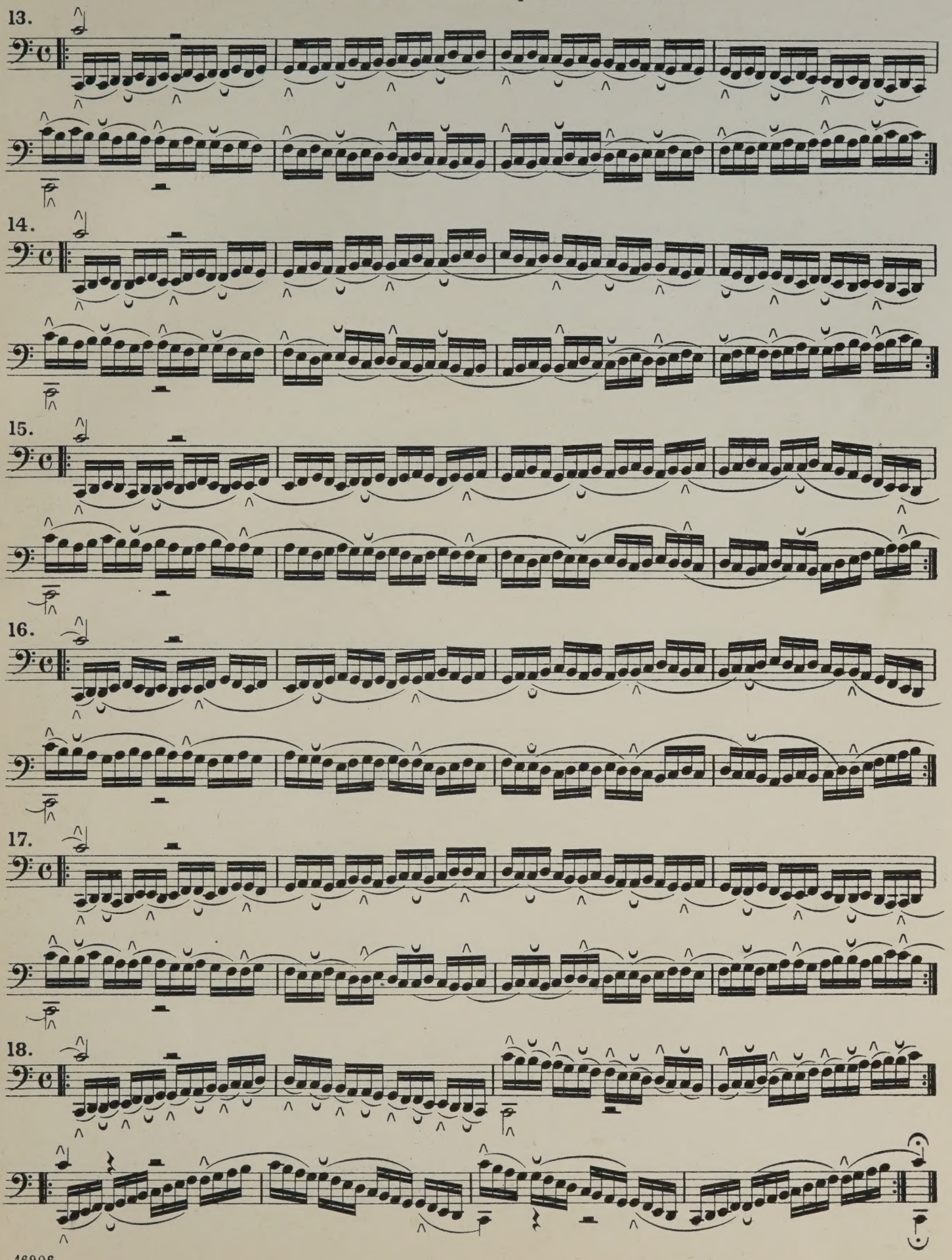
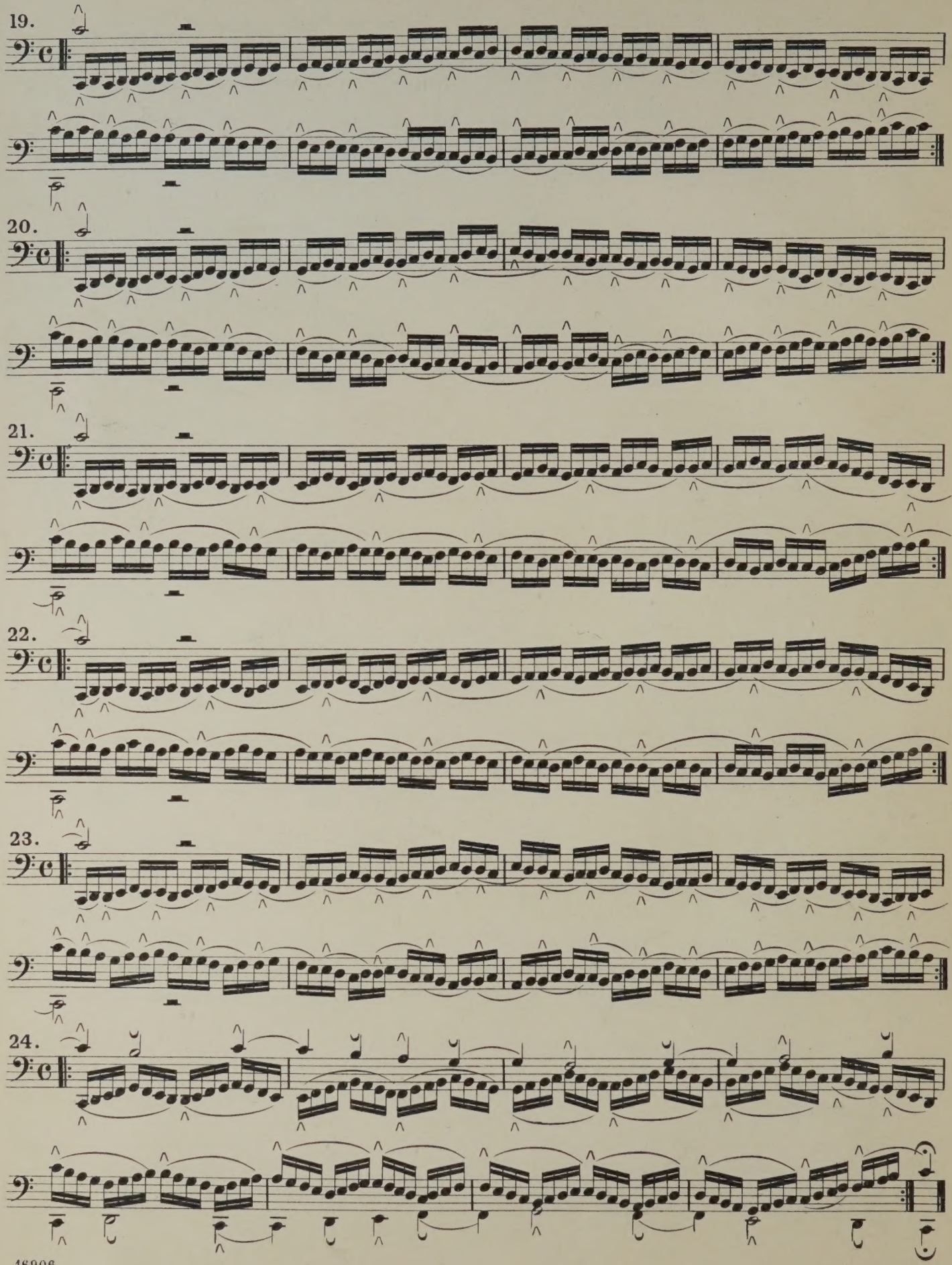
B. Exercises with notes repeated on an accent.

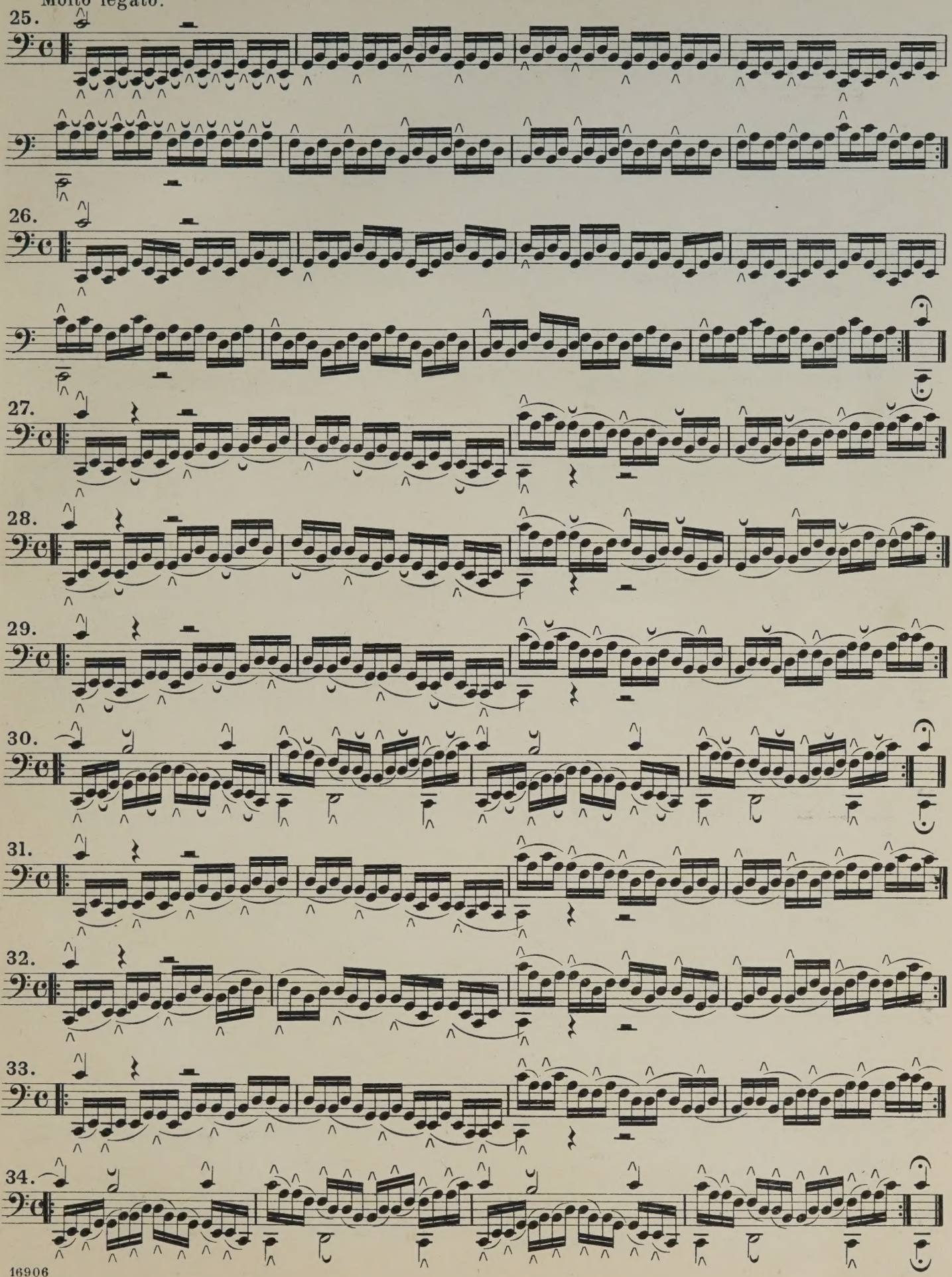


C. Exercises in which the foot advances by taking a new position.



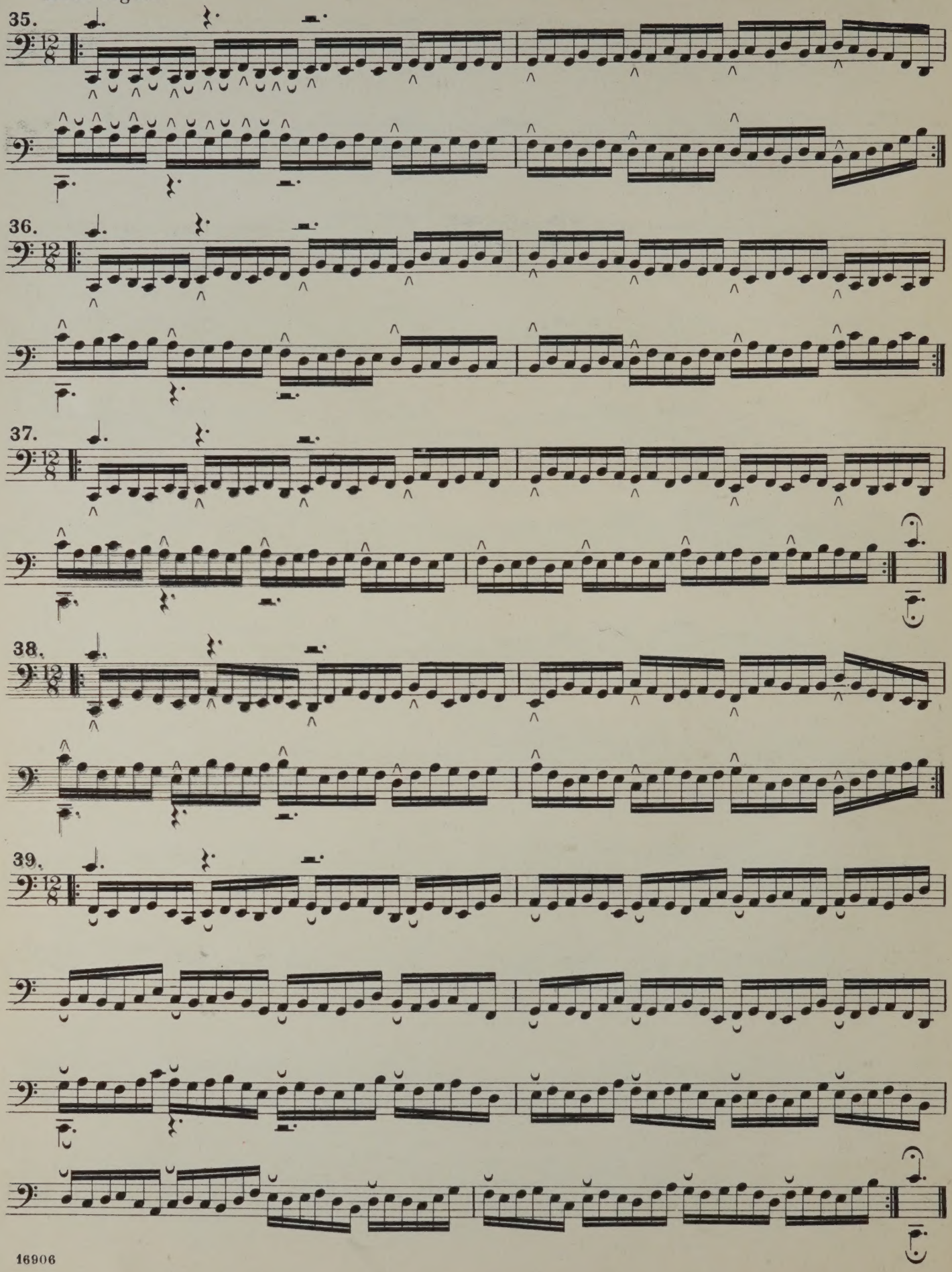
D. Exercises in Diatonic Thirds.

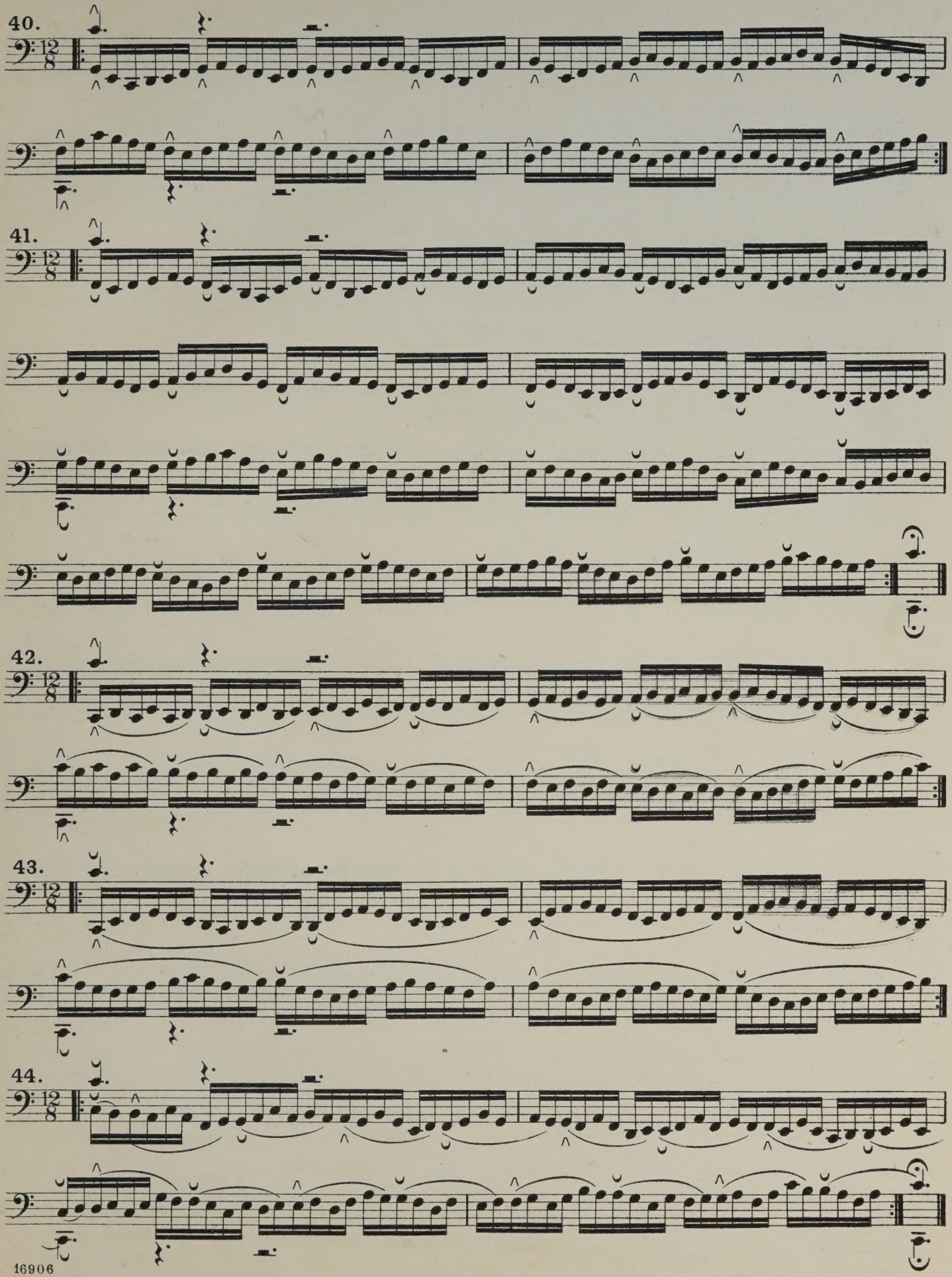
Molto legato.



E. Mixed Seconds and Thirds.

Molto legato.

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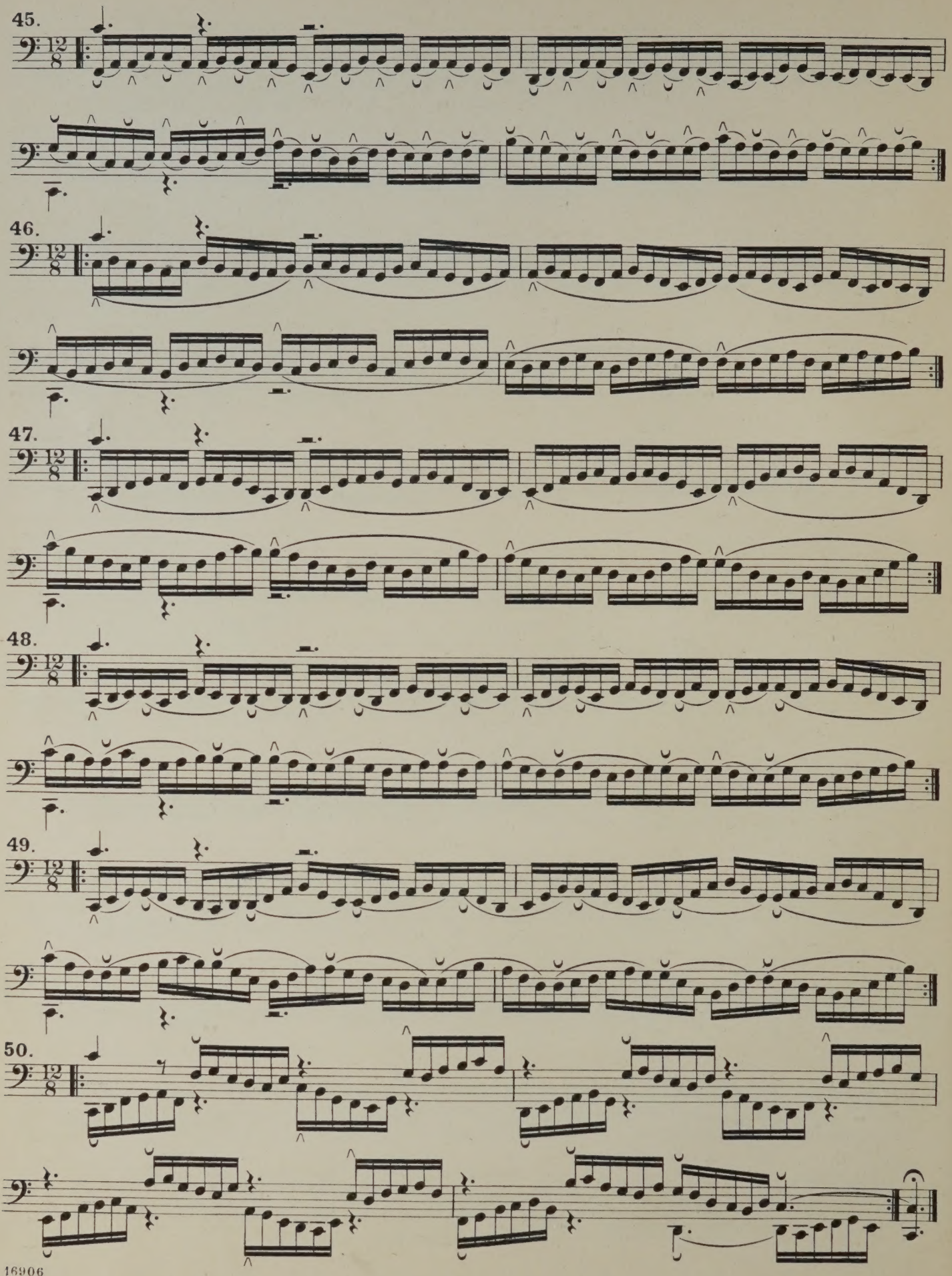
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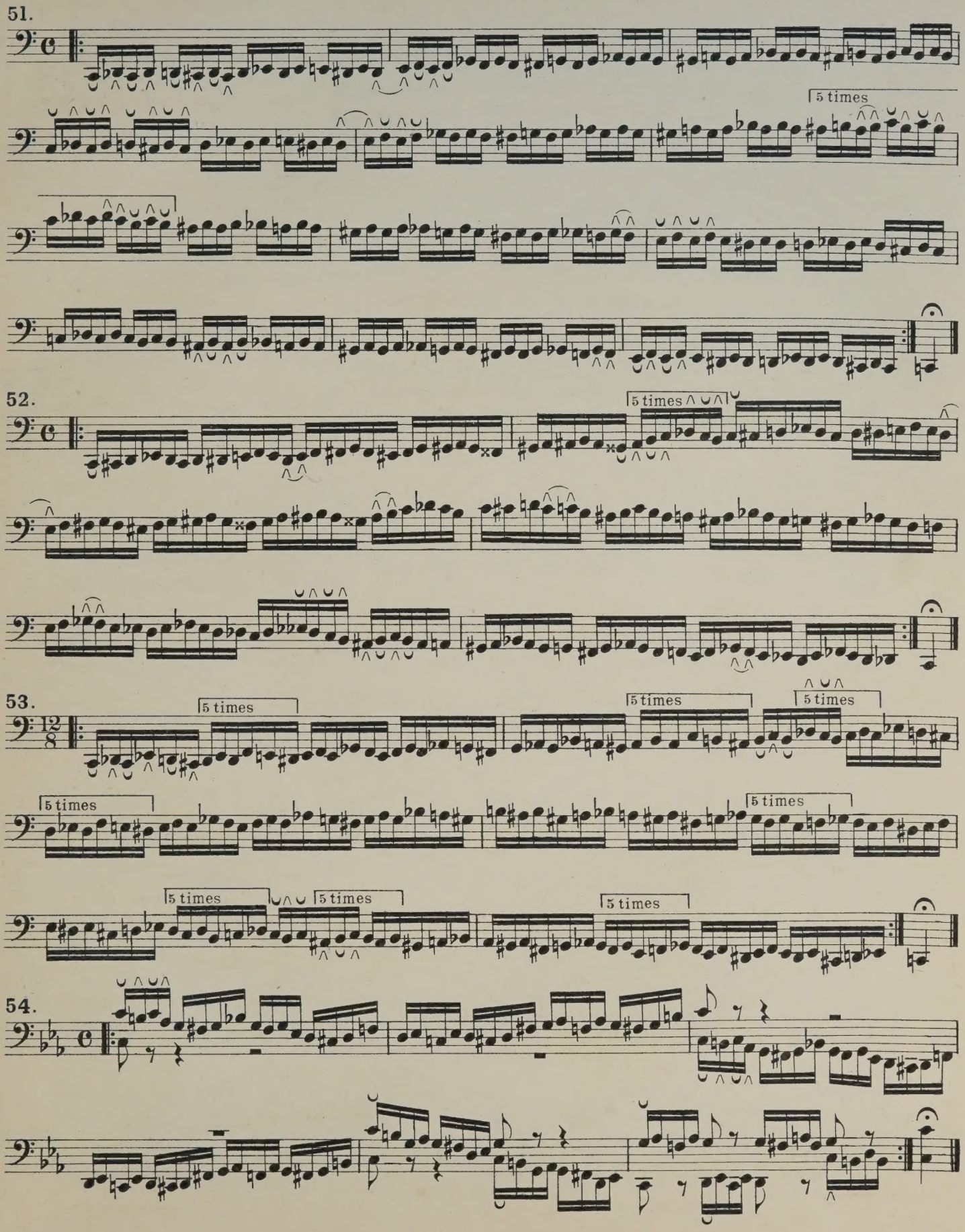
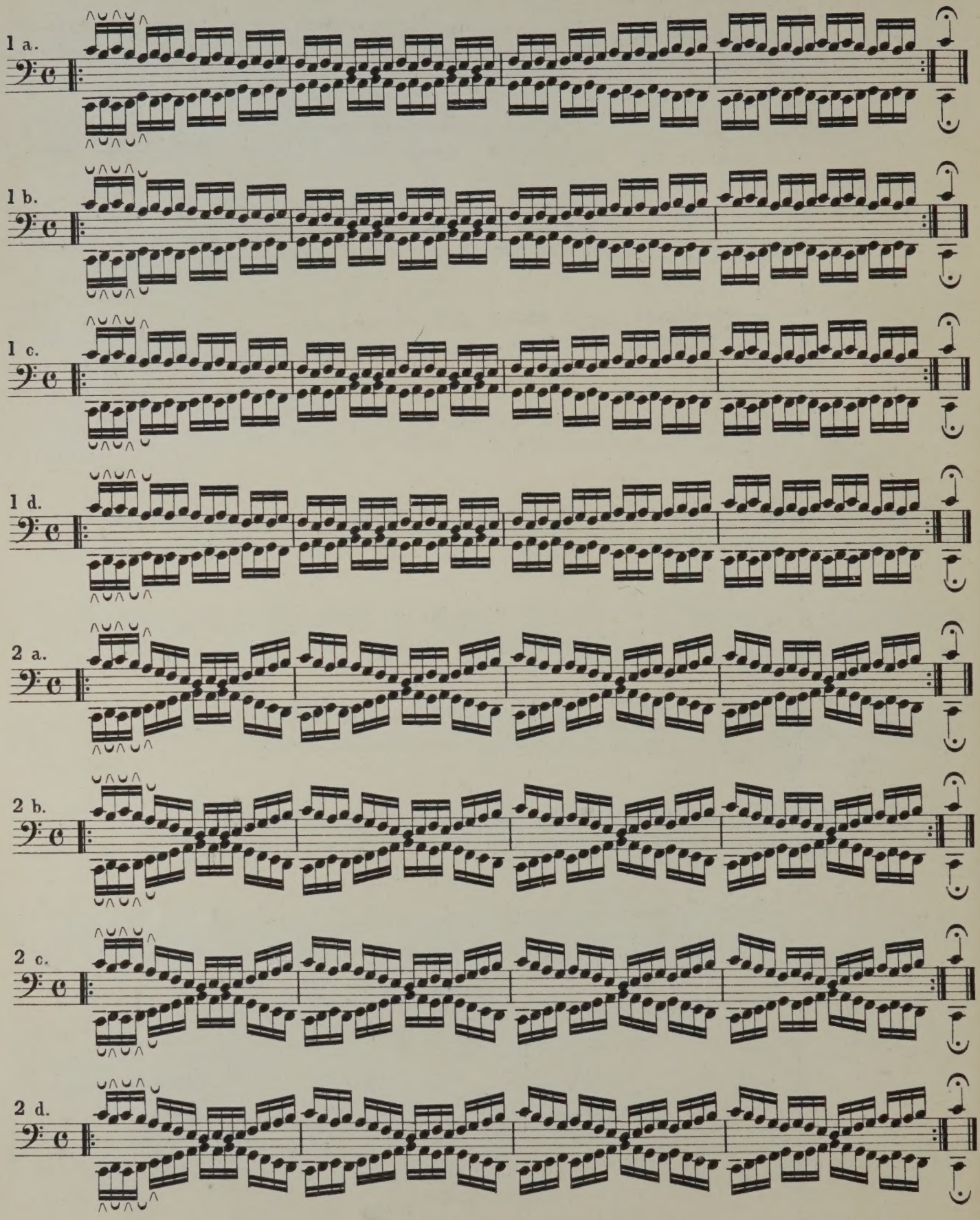
F. Chromatic Exercises.

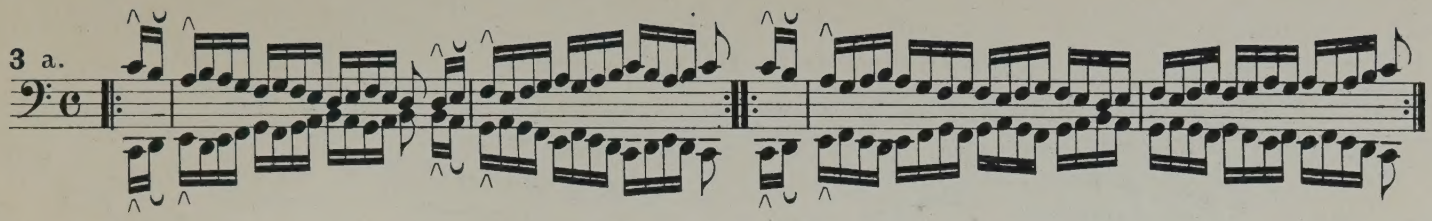


Section II.

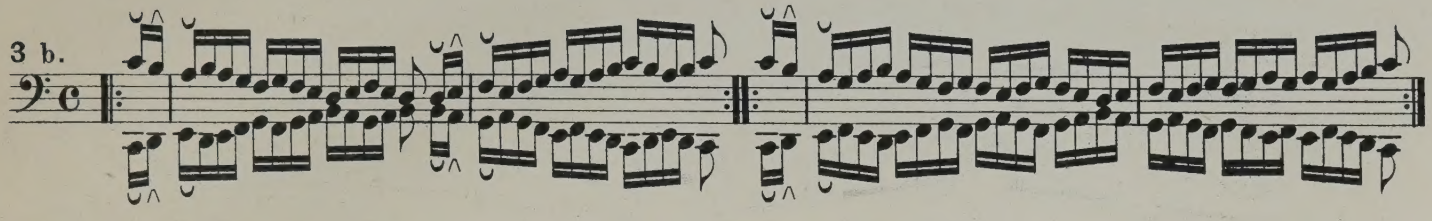
A. Exercises for Both Feet Together.



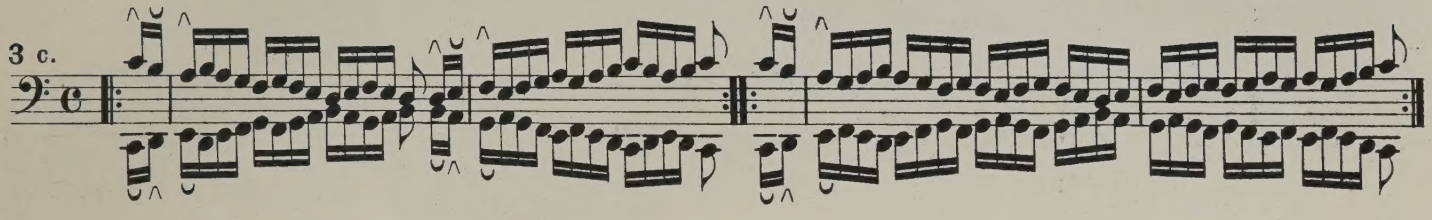
3 a.



3 b.



3 c.



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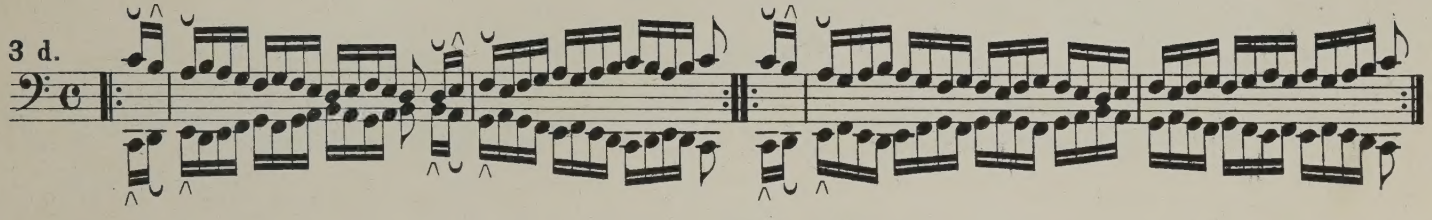
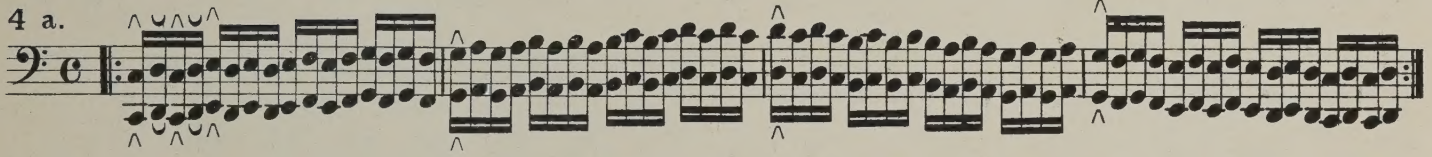


B. Double-Pedalling in Octaves.

4 a.



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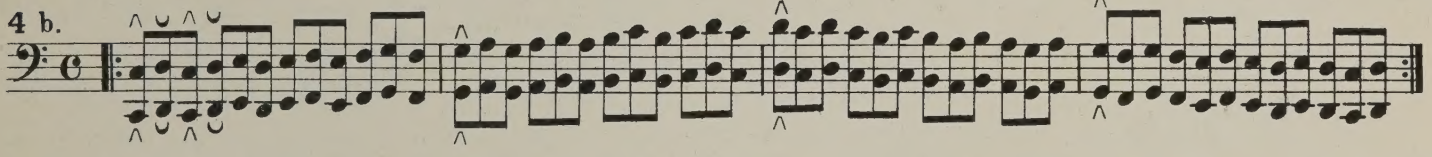

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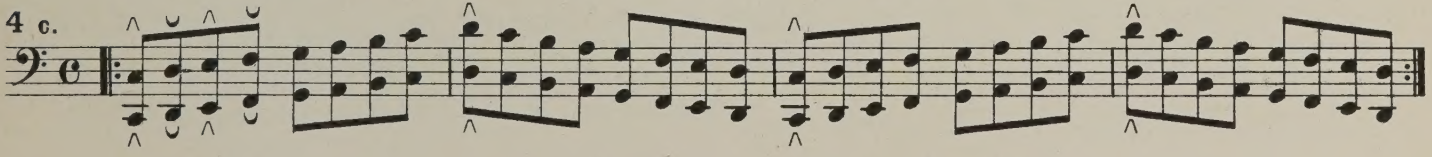

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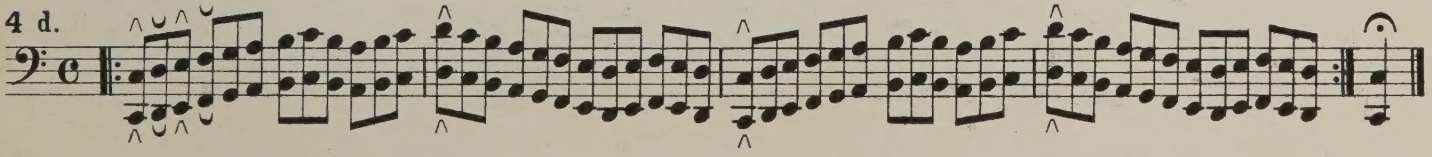
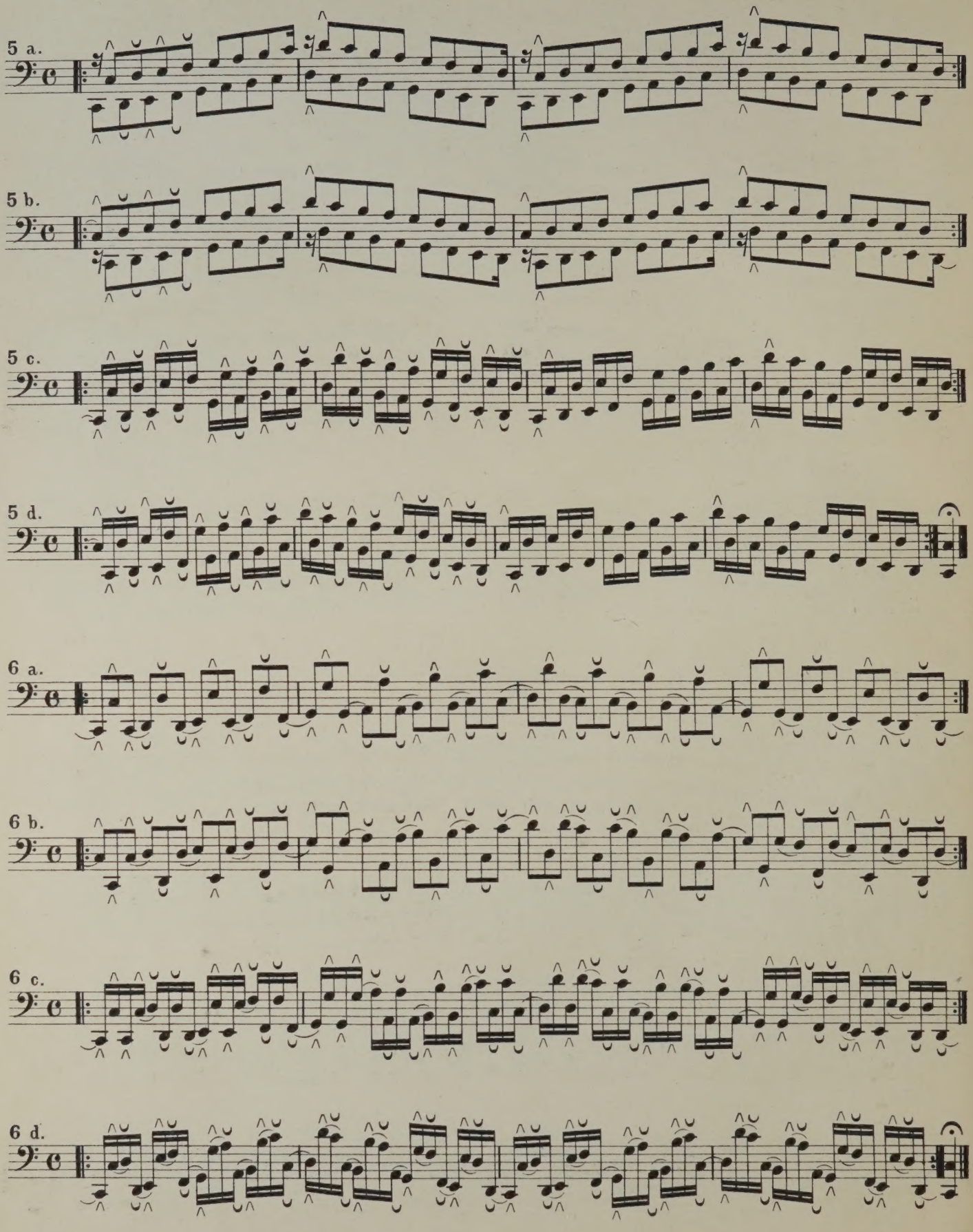
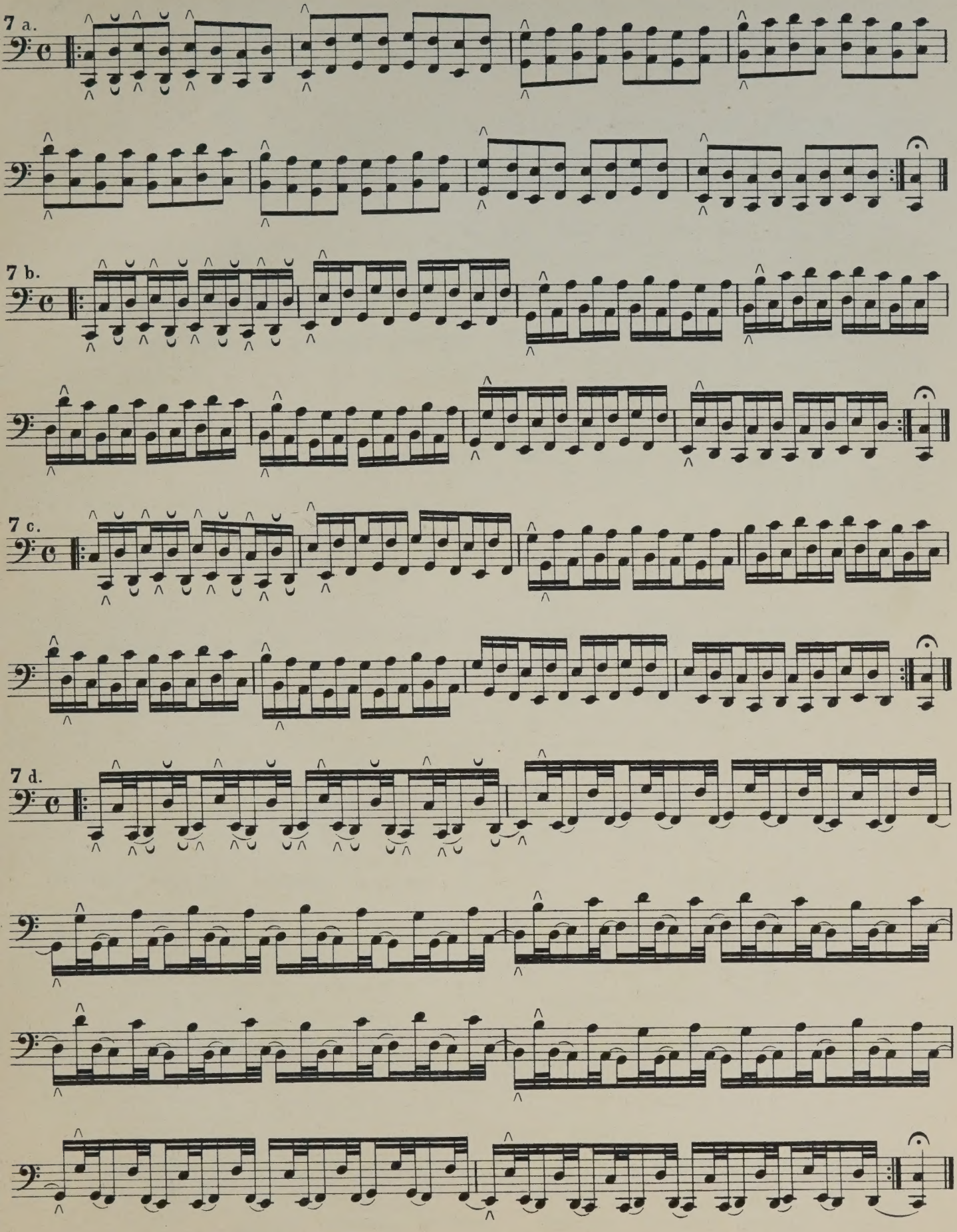



5 a.
5 b.
5 c.
5 d.
6 a.
6 b.
6 c.
6 d.


7 a.
7 b.
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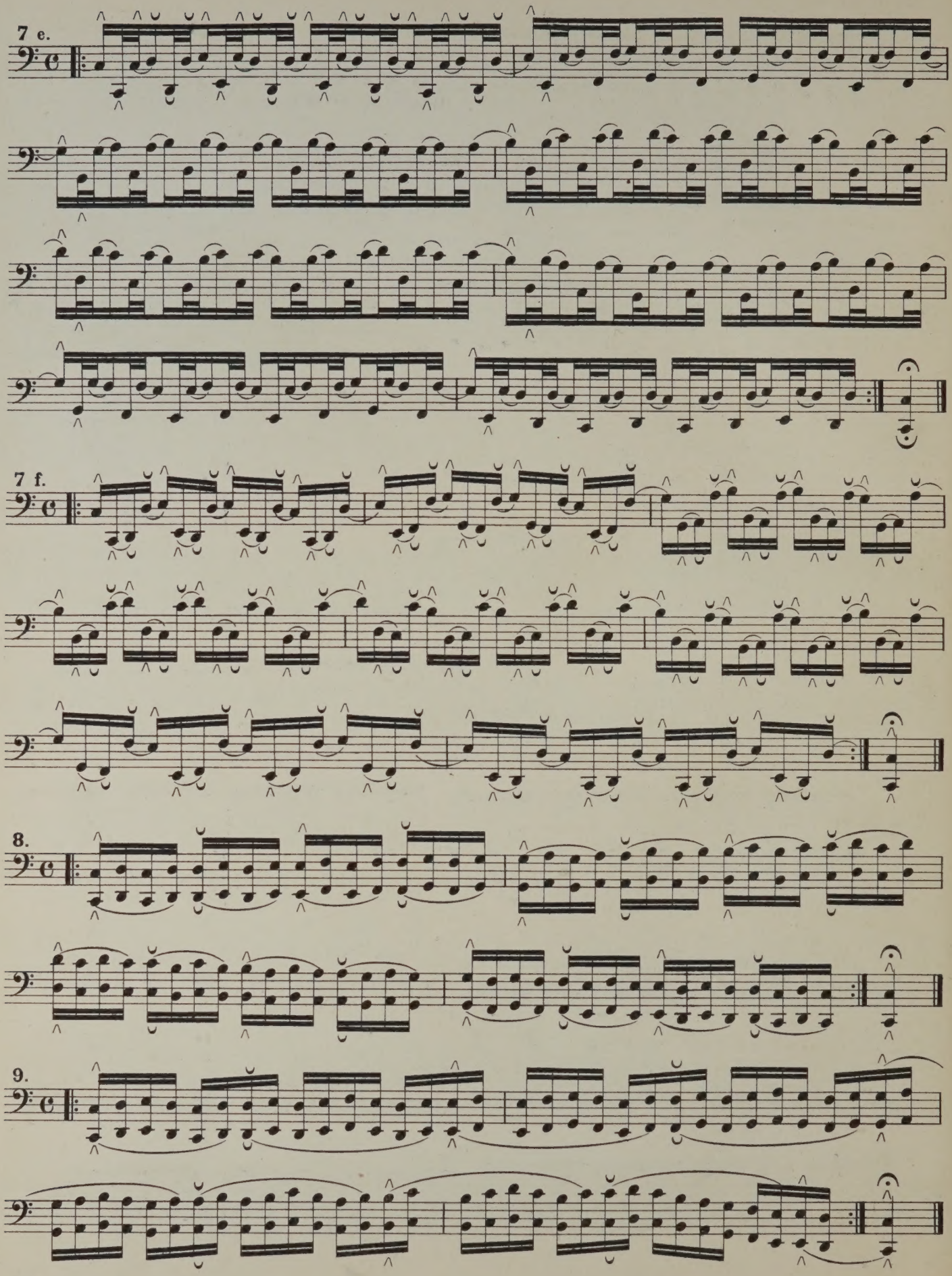
7 e.
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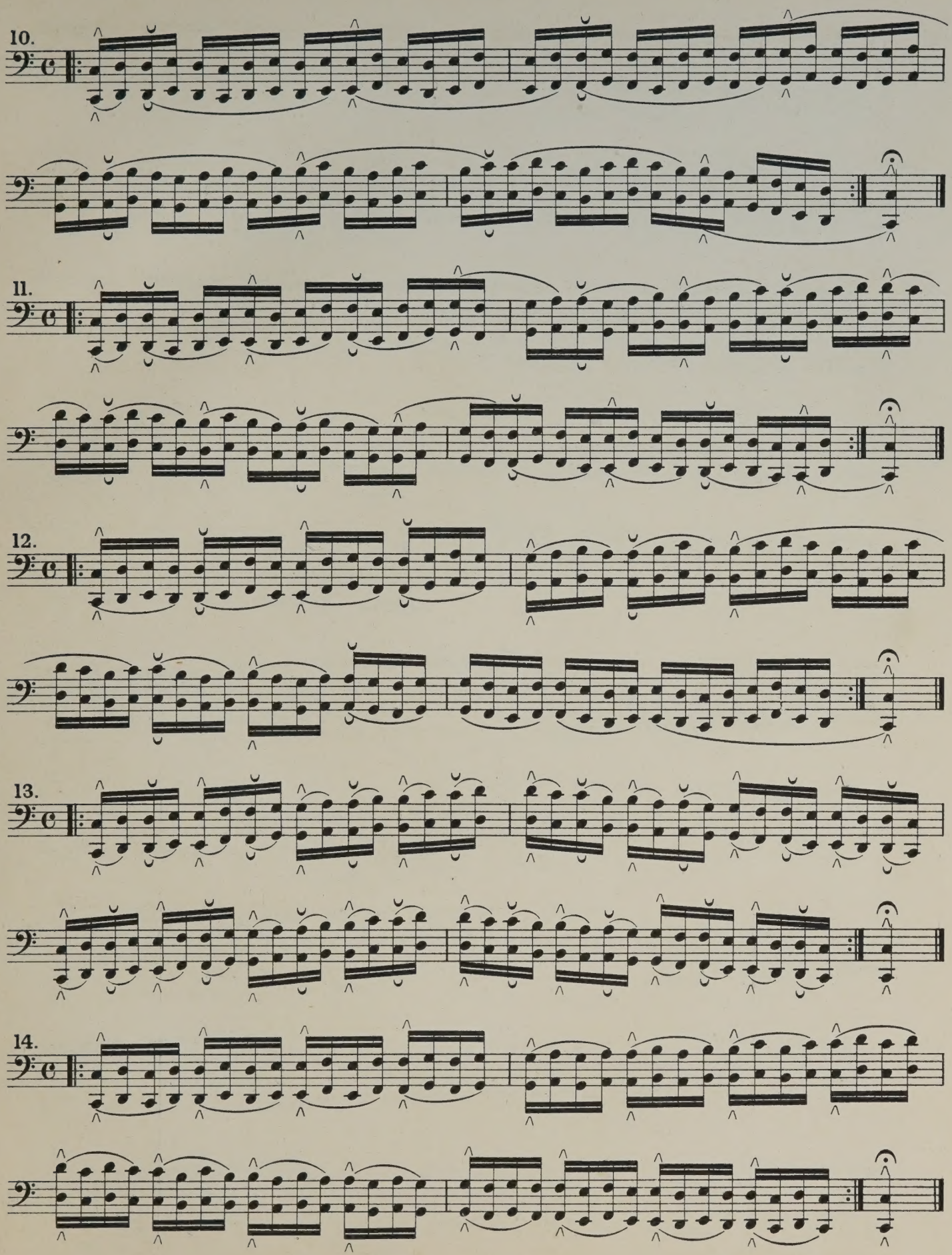
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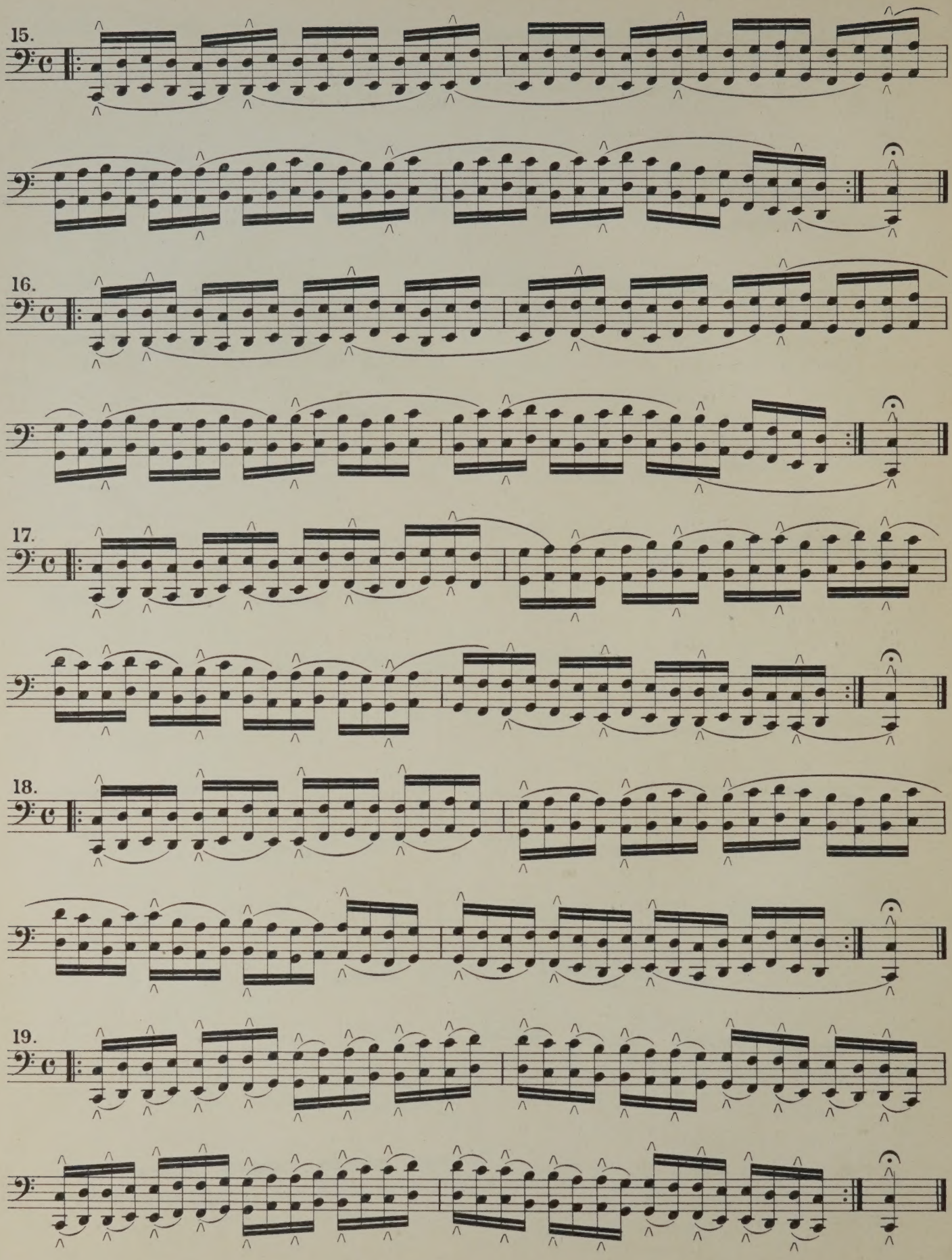
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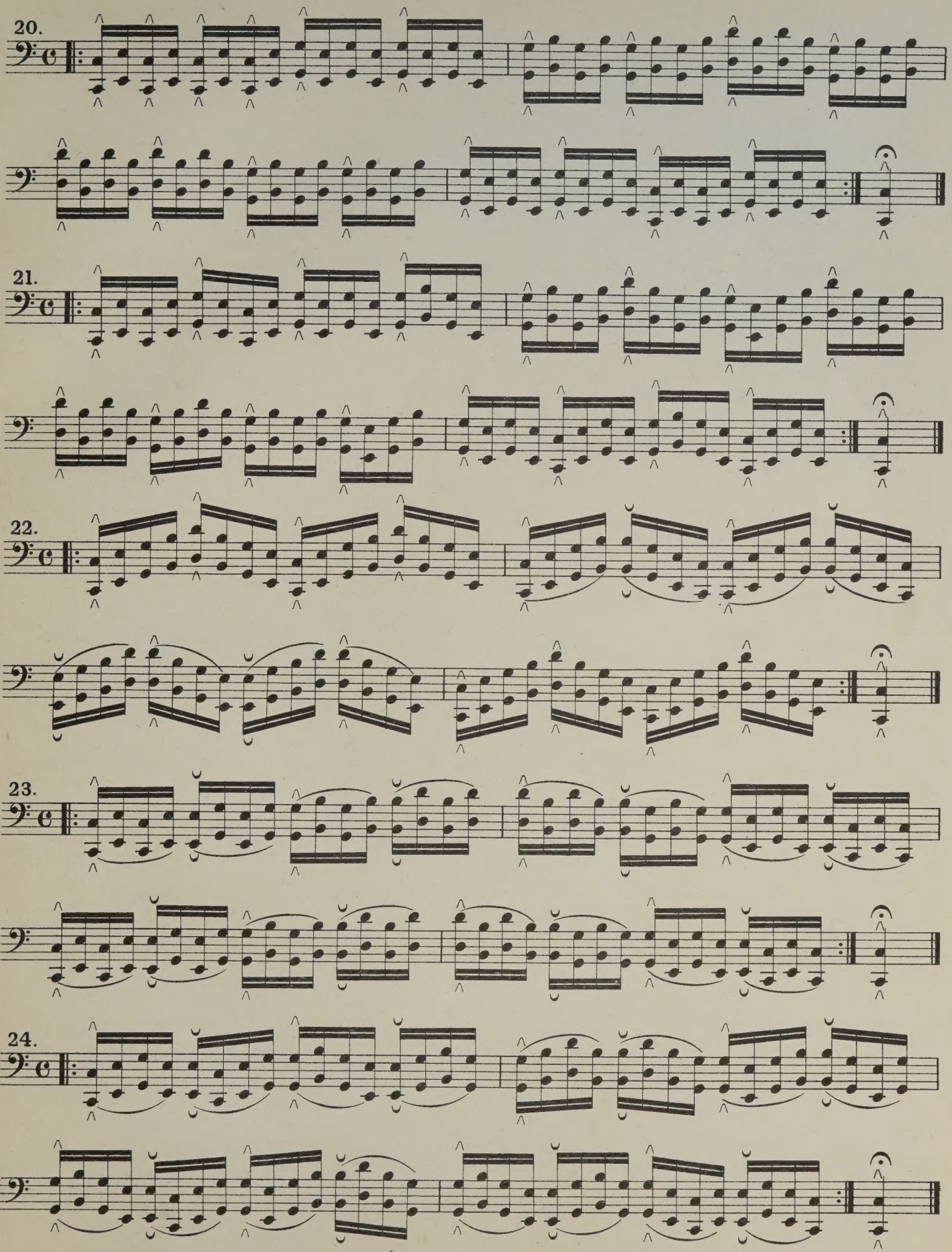
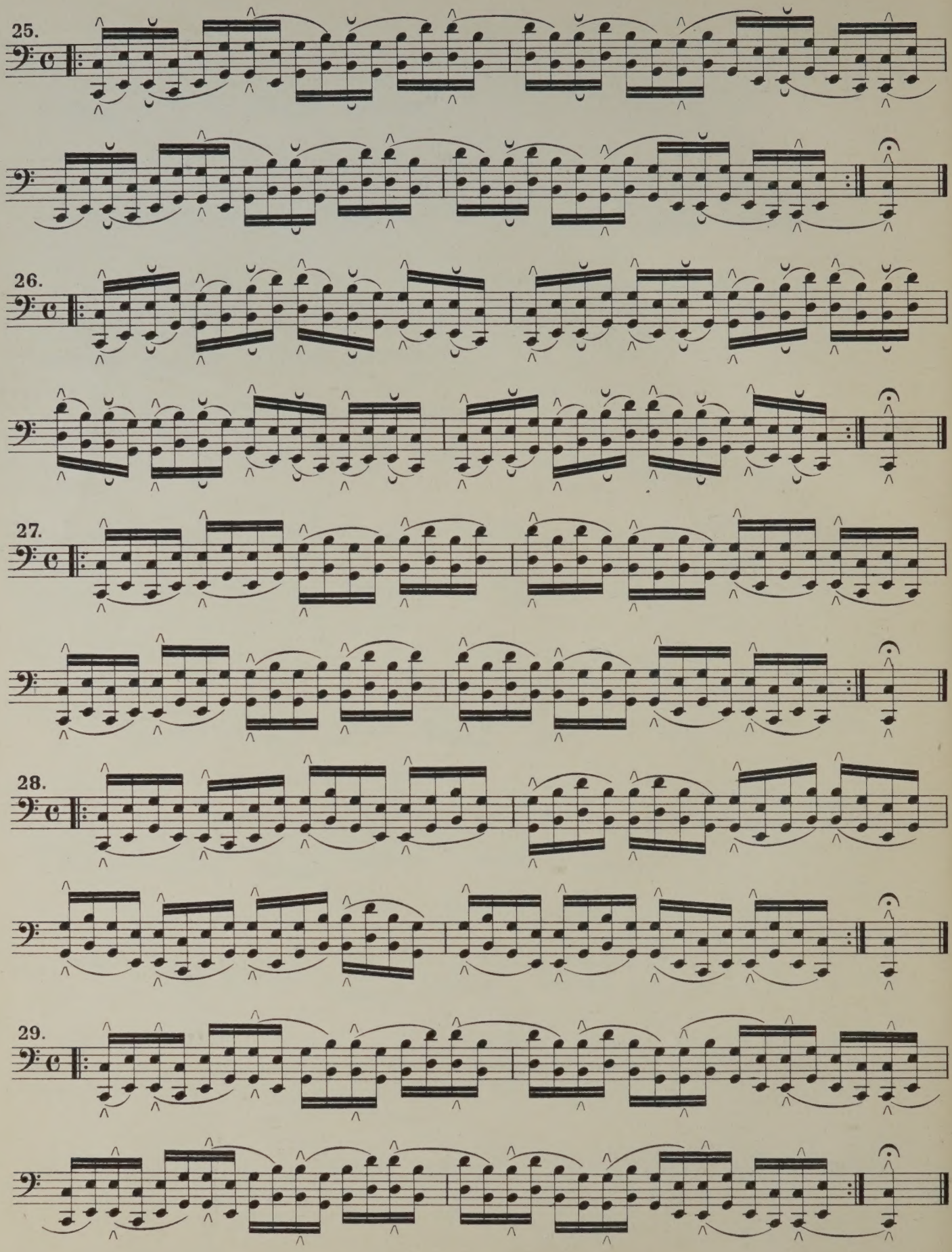
C. Octave Exercises with Skips of a Third.

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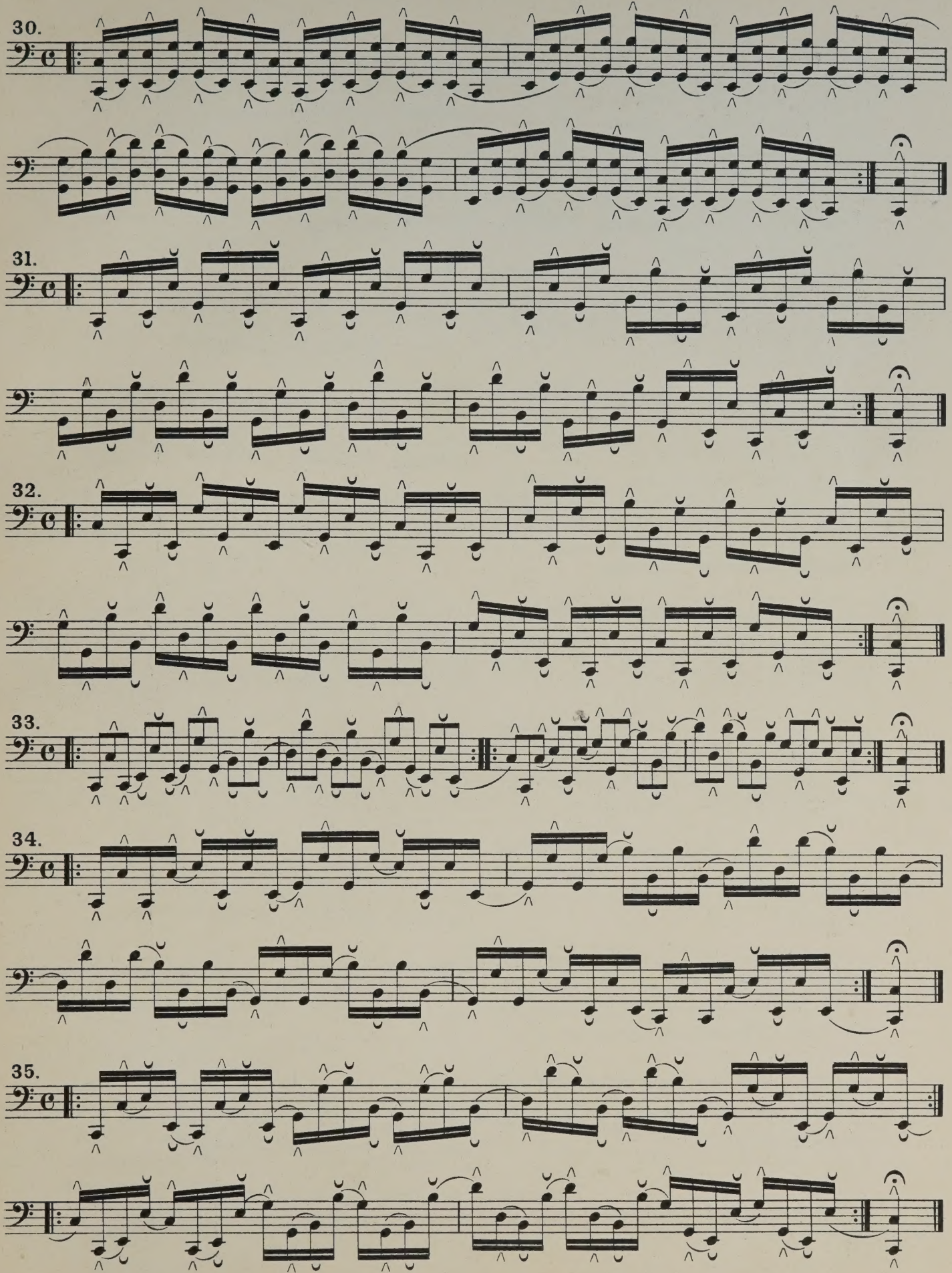
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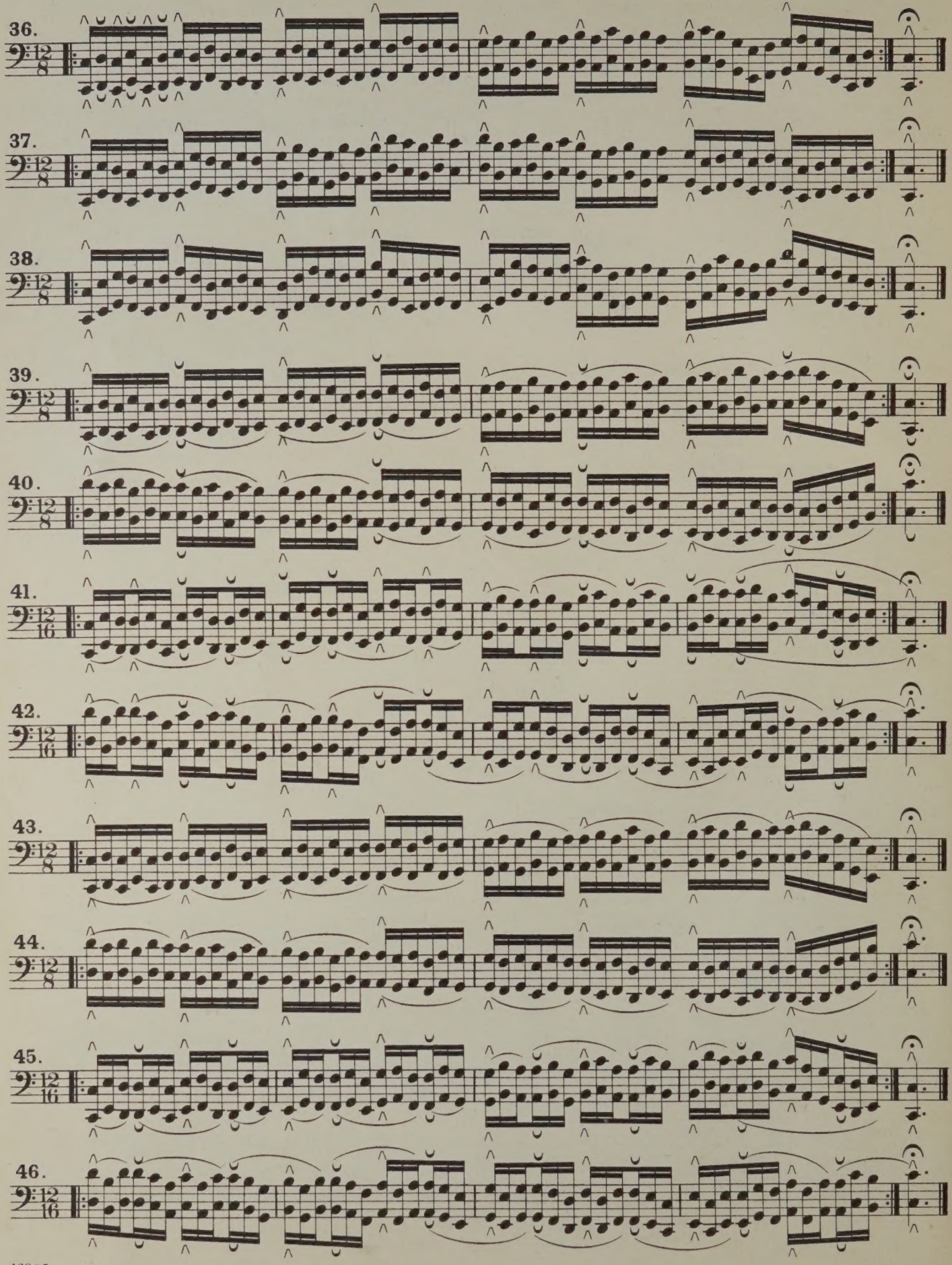
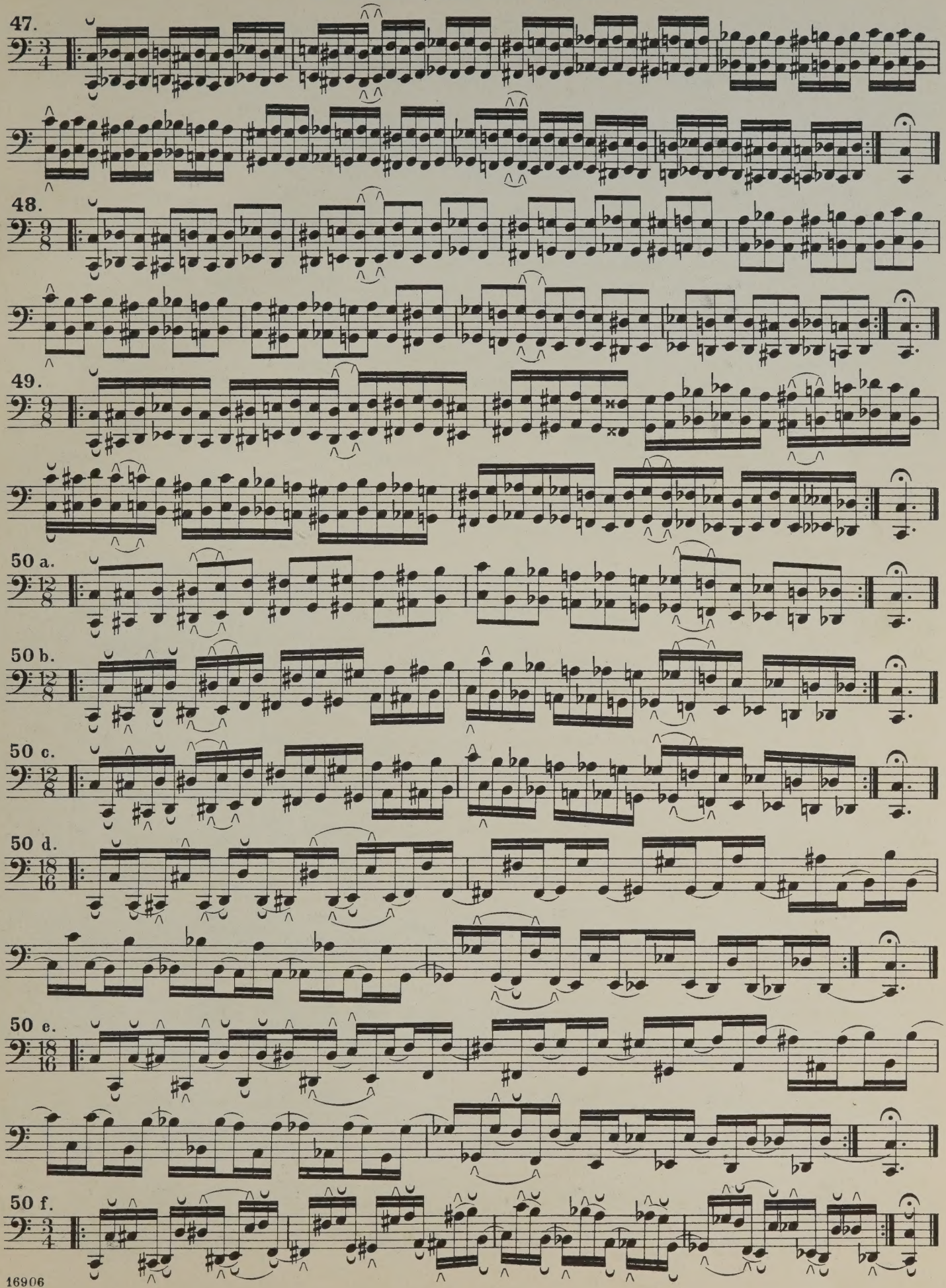
D. Octave Exercises with Mixed Thirds and Seconds.

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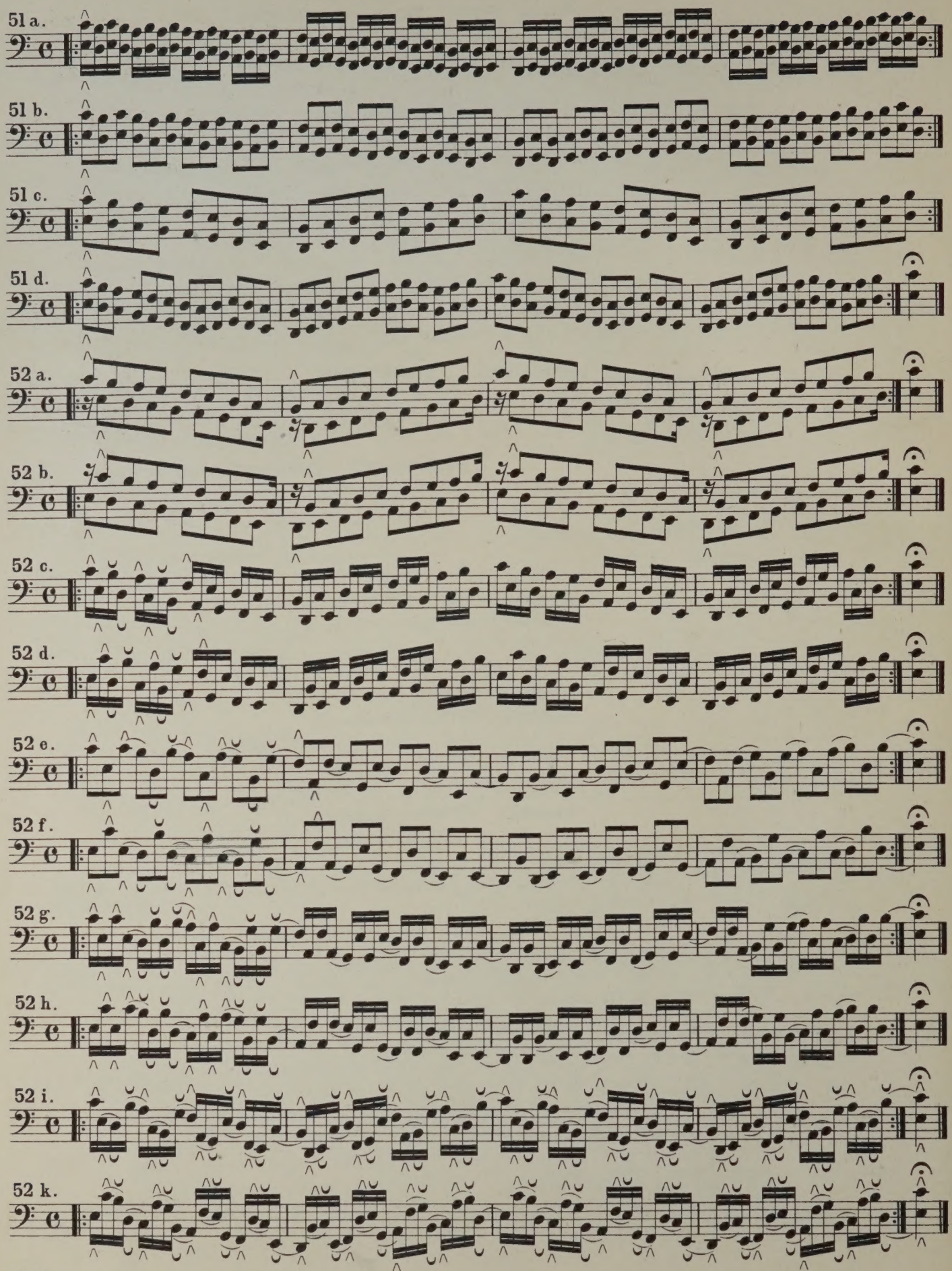
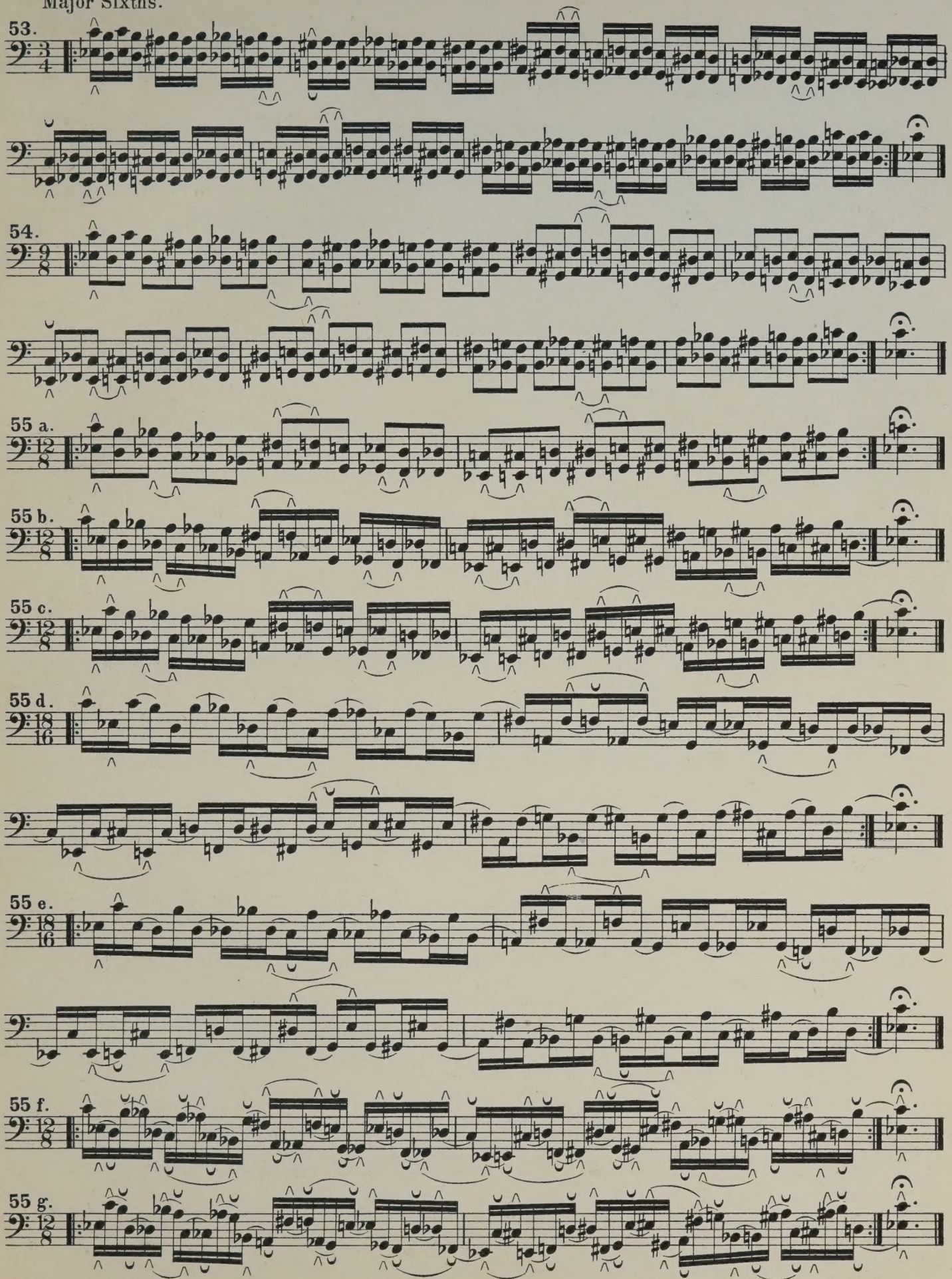
50 a.
50 b.
50 c.
50 d.
50 e.
50 f.

F. Exercises in Sixths, Solid and Broken.

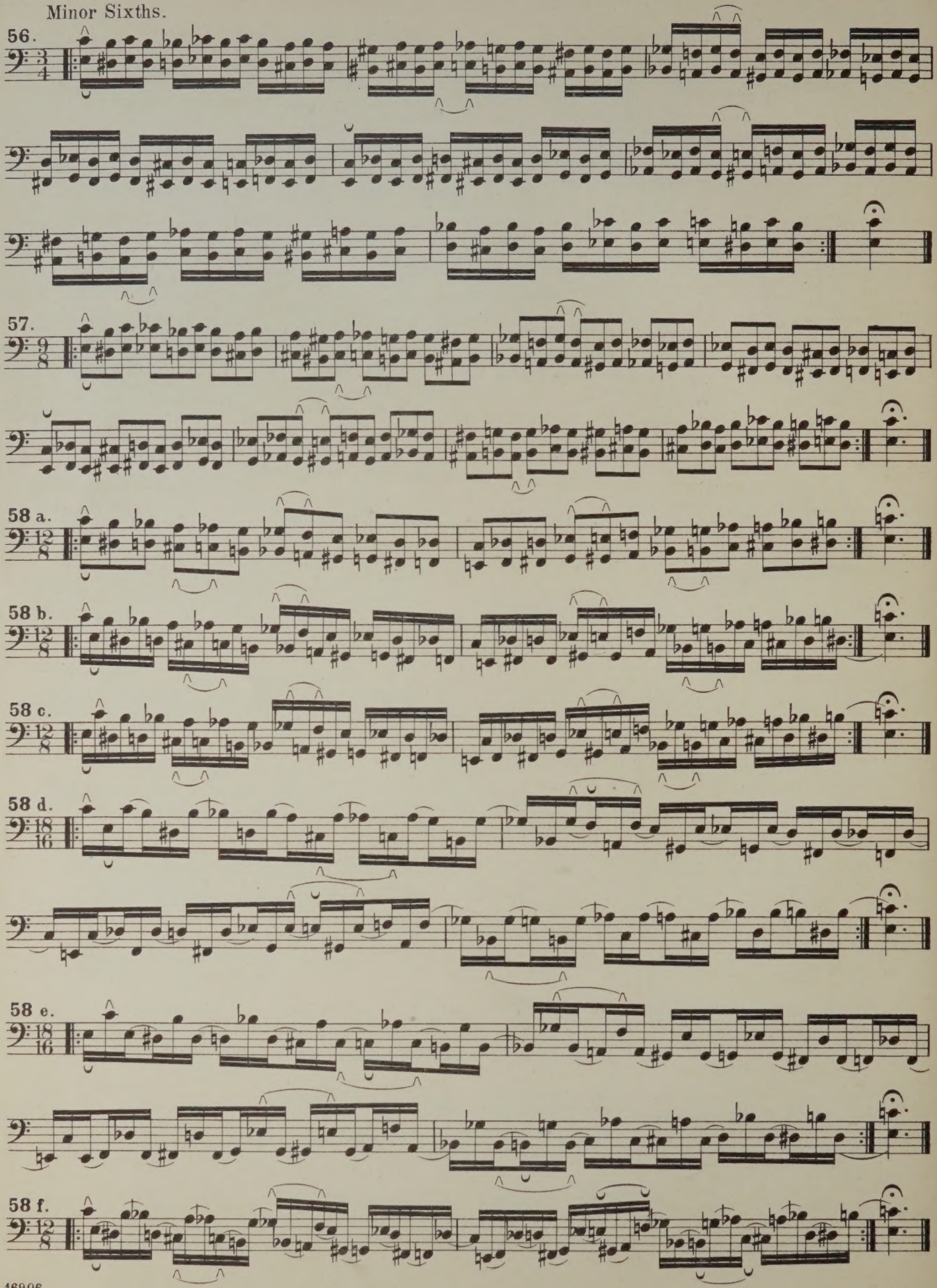


G. Chromatic Exercises in Sixths.

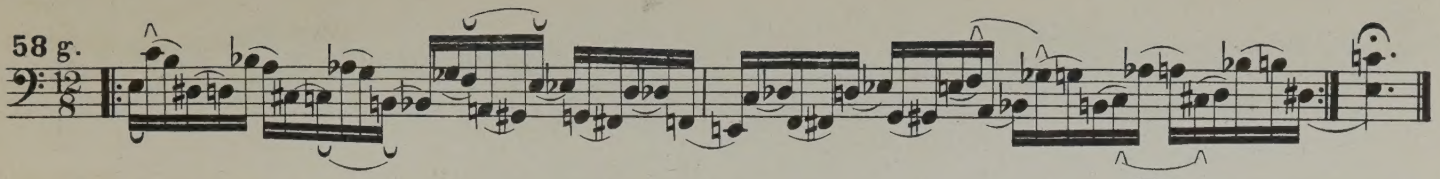
Major Sixths.



Minor Sixths.

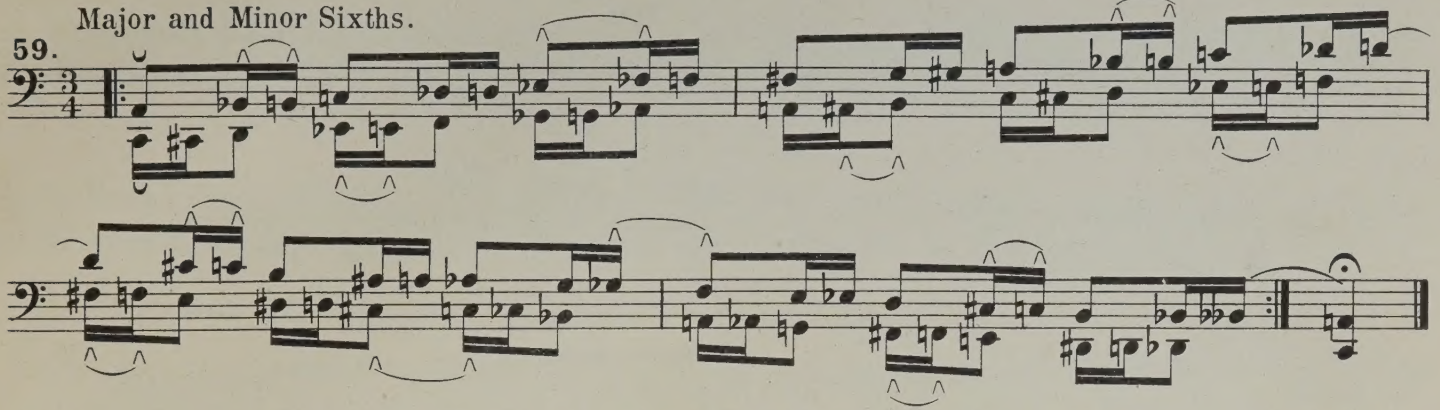


58 g.



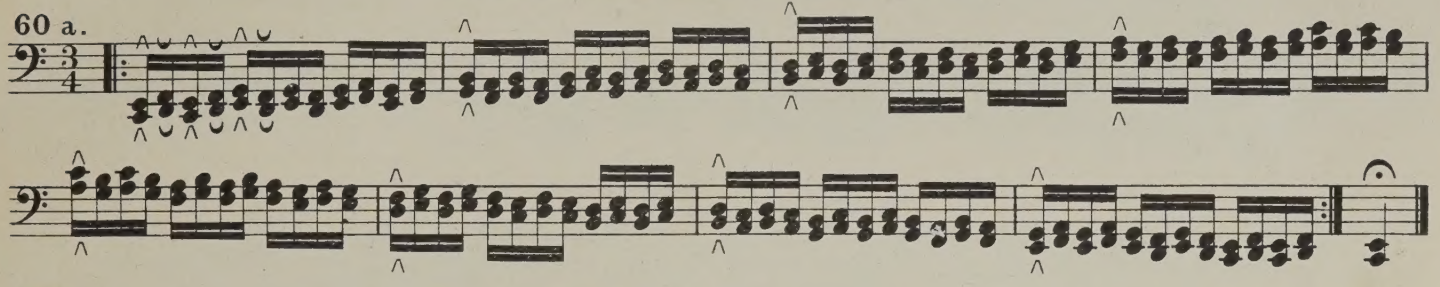
Major and Minor Sixths.

59.

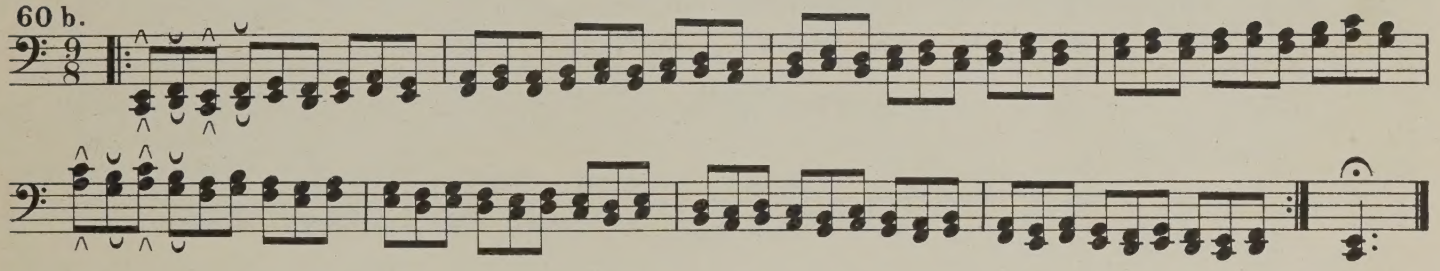


H. Exercises in Solid and Broken Thirds.

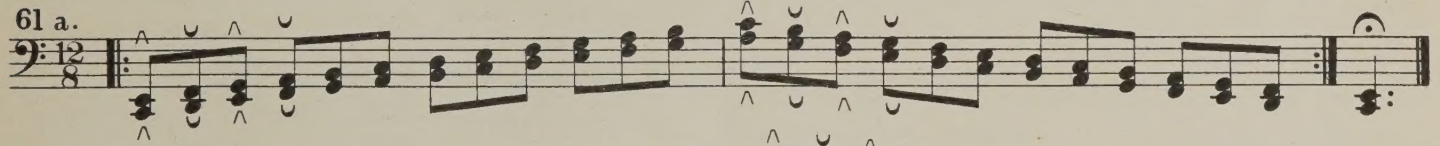
60 a.



60 b.



61 a.



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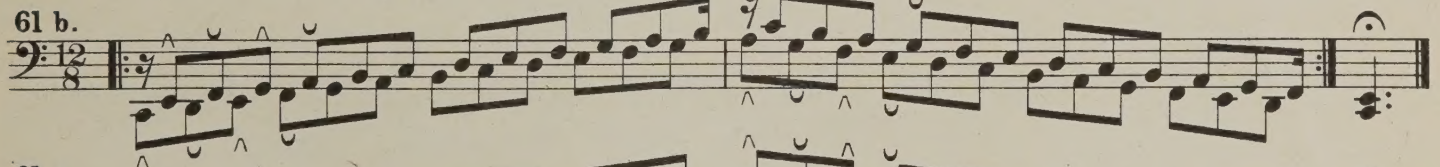
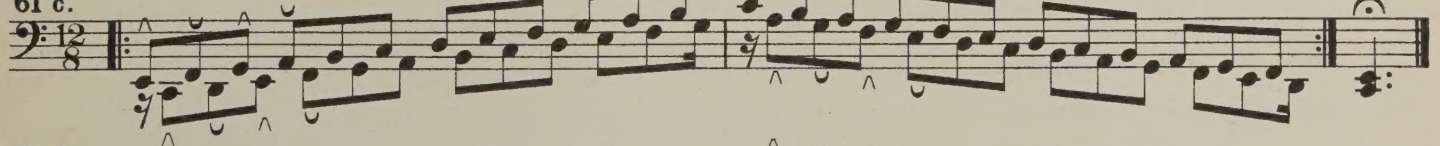
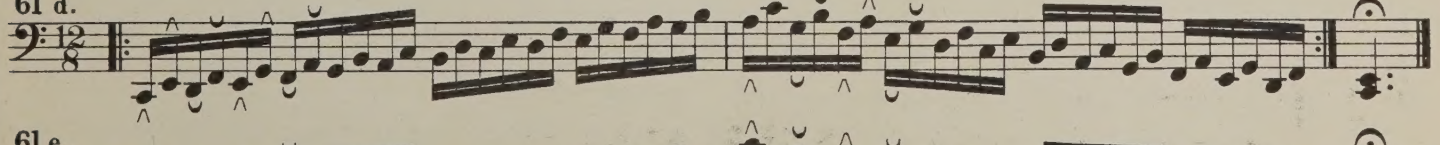


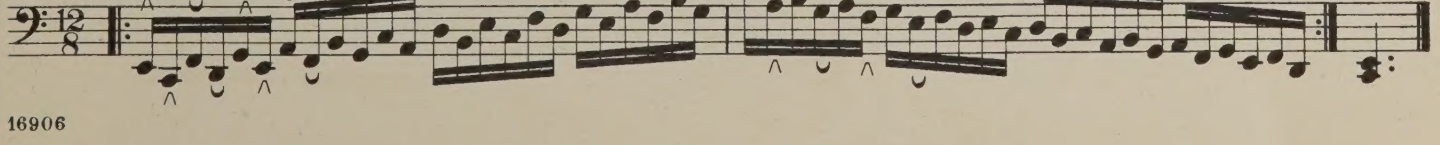
61 c.



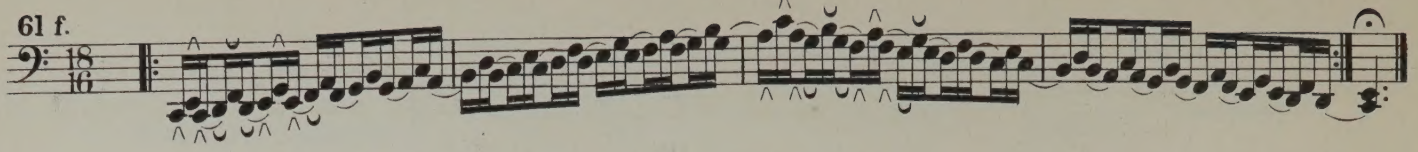
61 d.



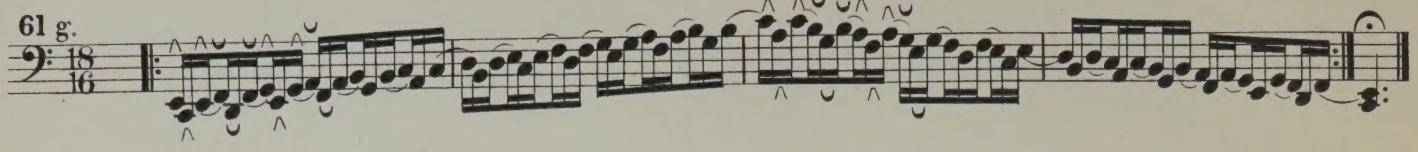
61 e.



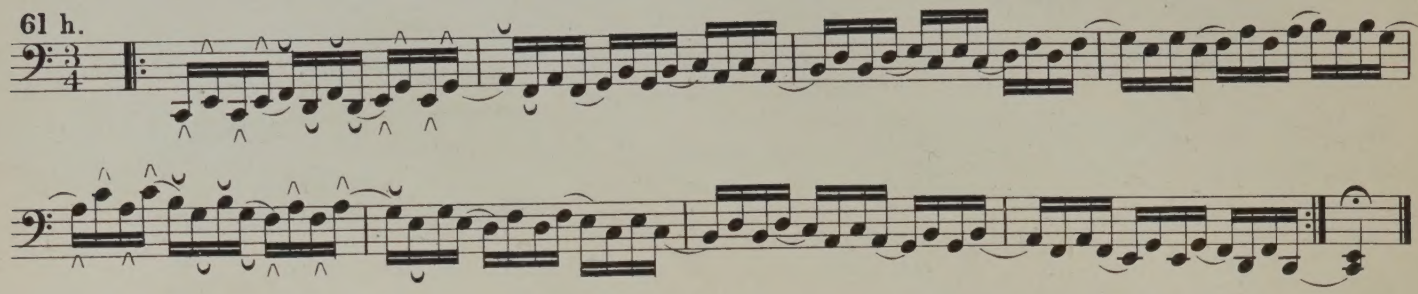
61 f.



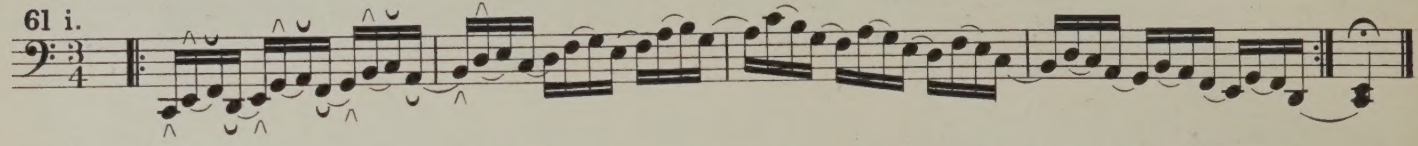
61 g.



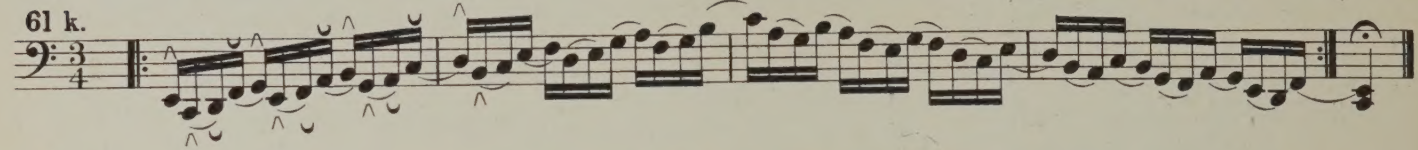
61 h.



61 i.

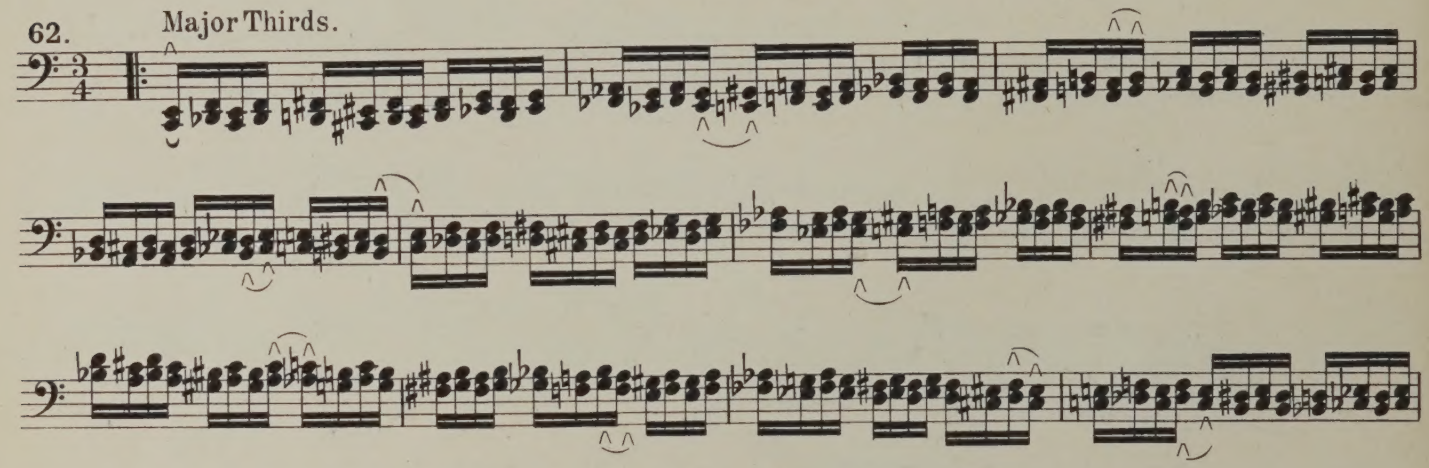


61 k.

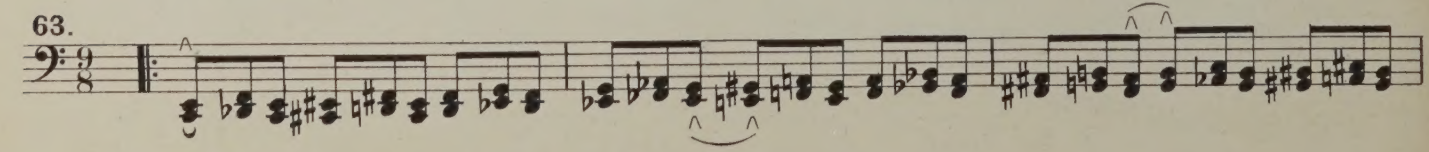


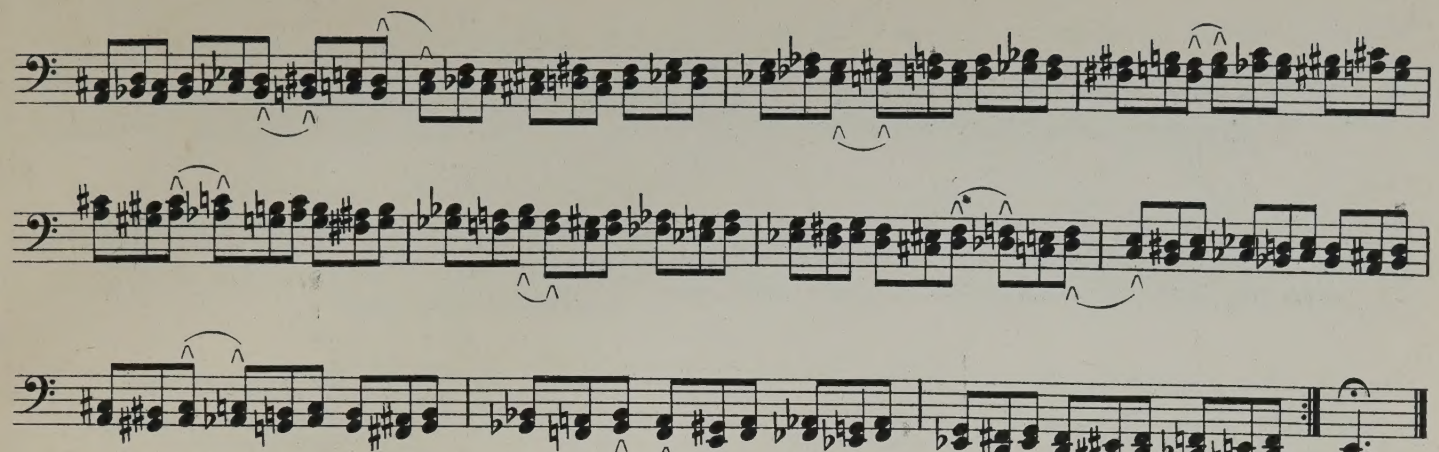
I. Chromatic Exercises in Thirds.

62. Major Thirds.

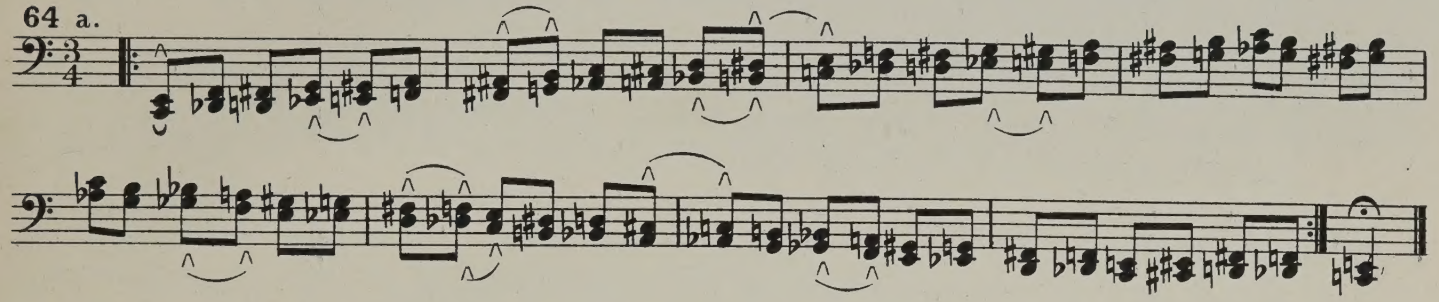


63.

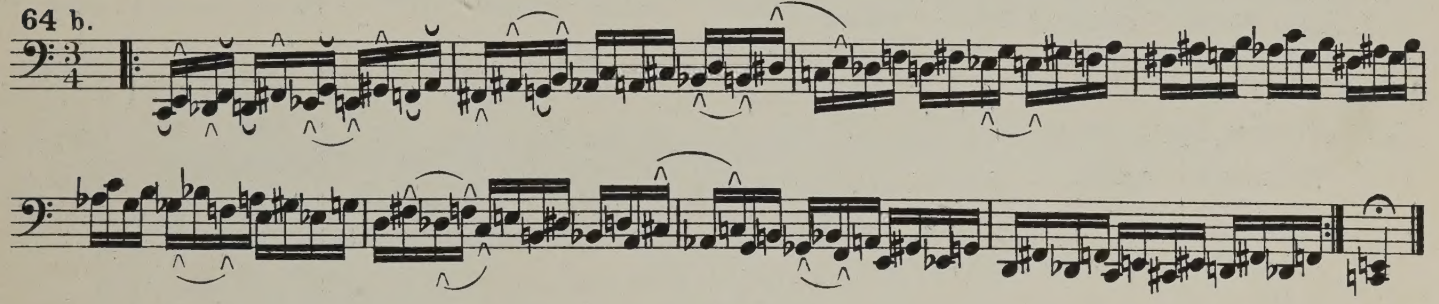




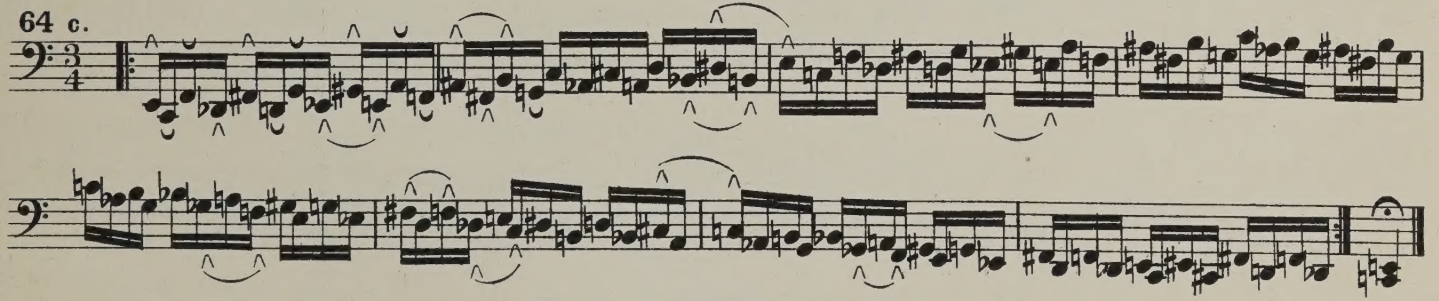
64 a.



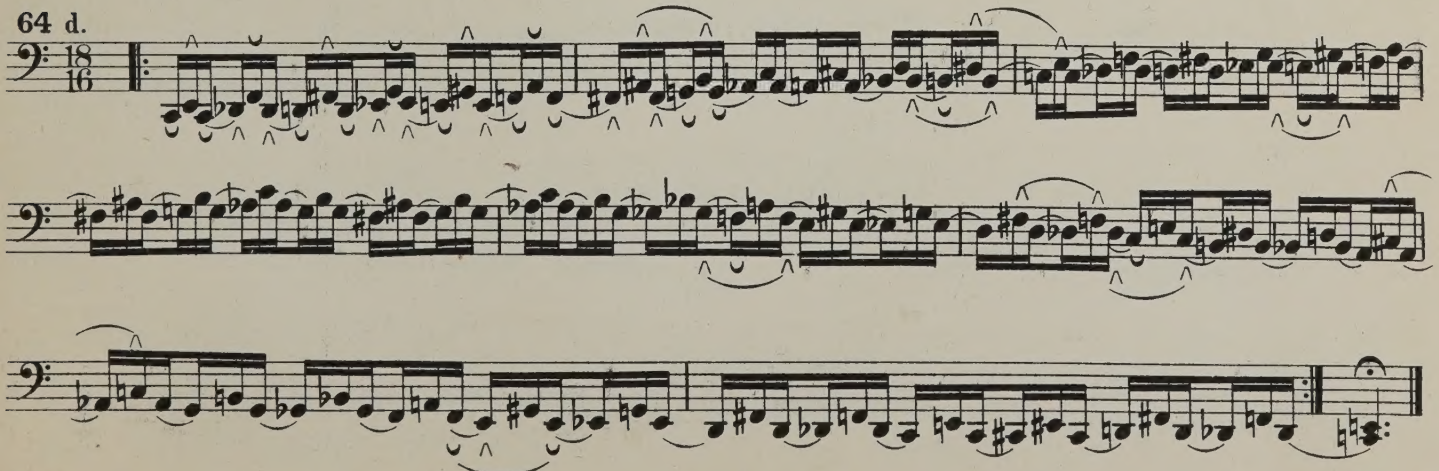
64 b.



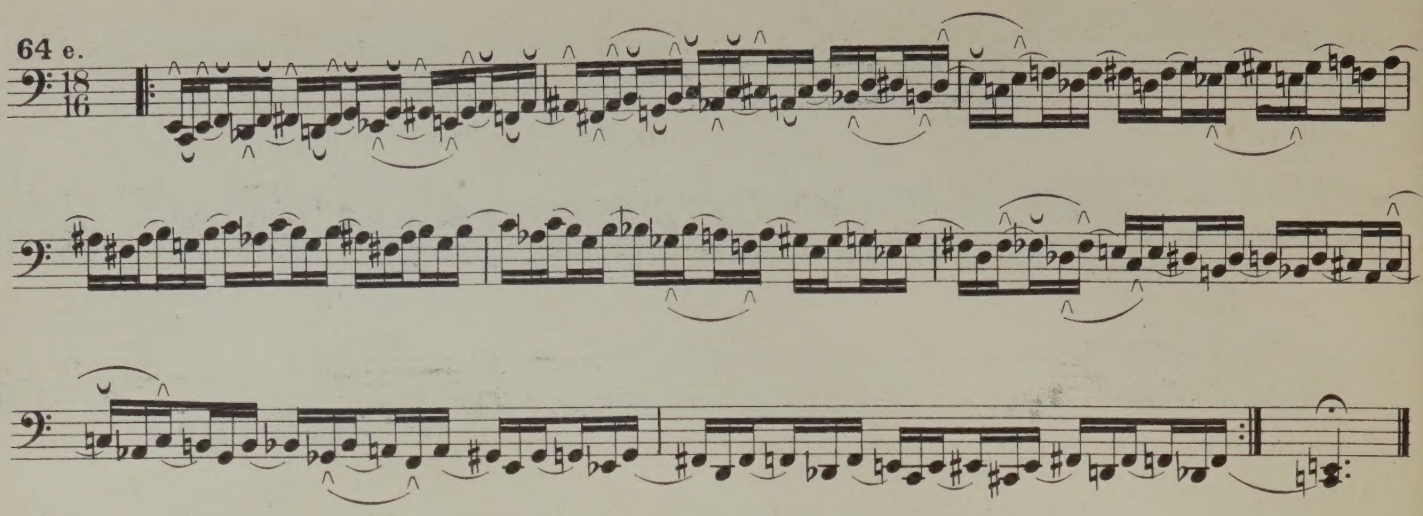
64 c.



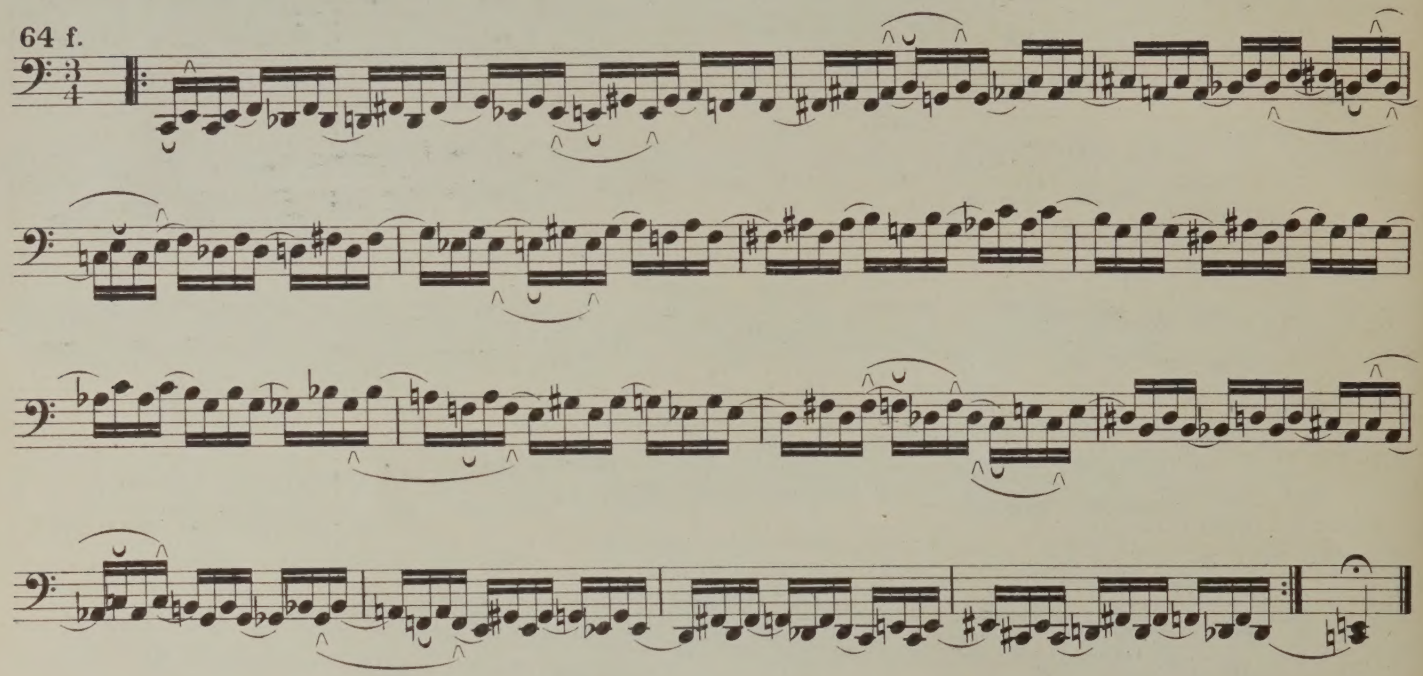
64 d.



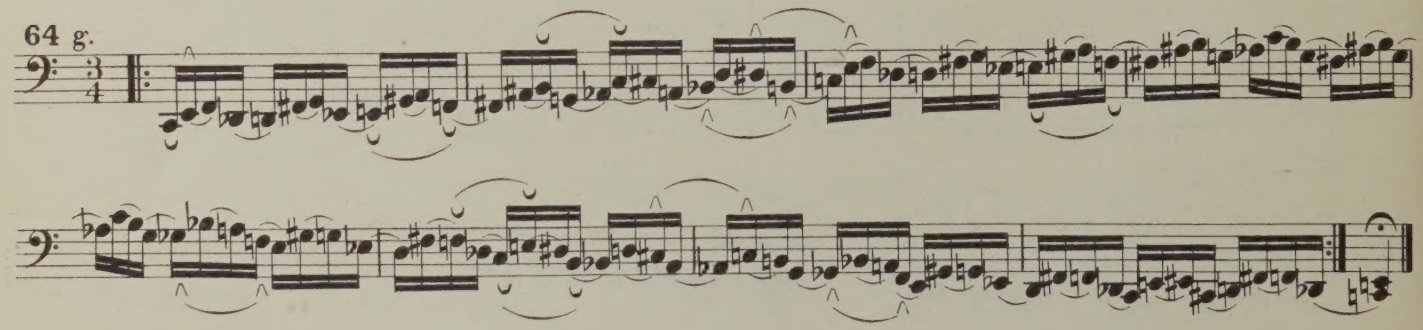
64 e.



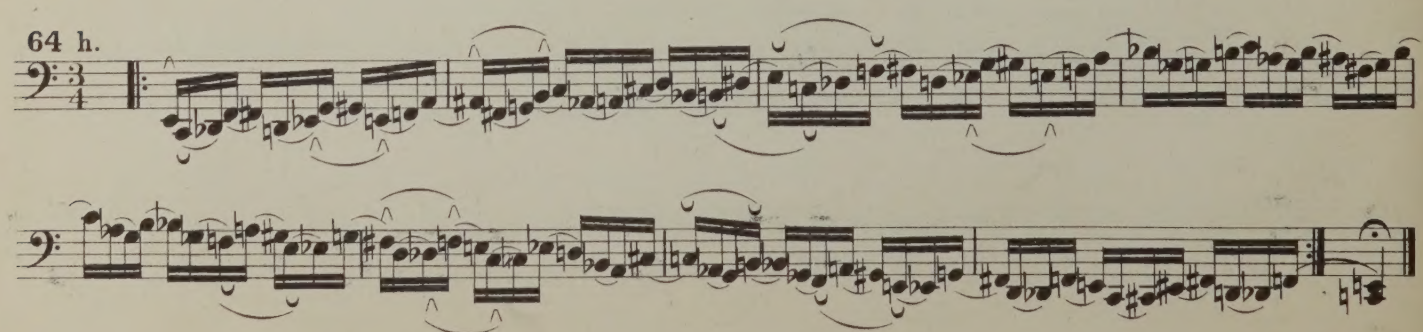
64 f.



64 g.

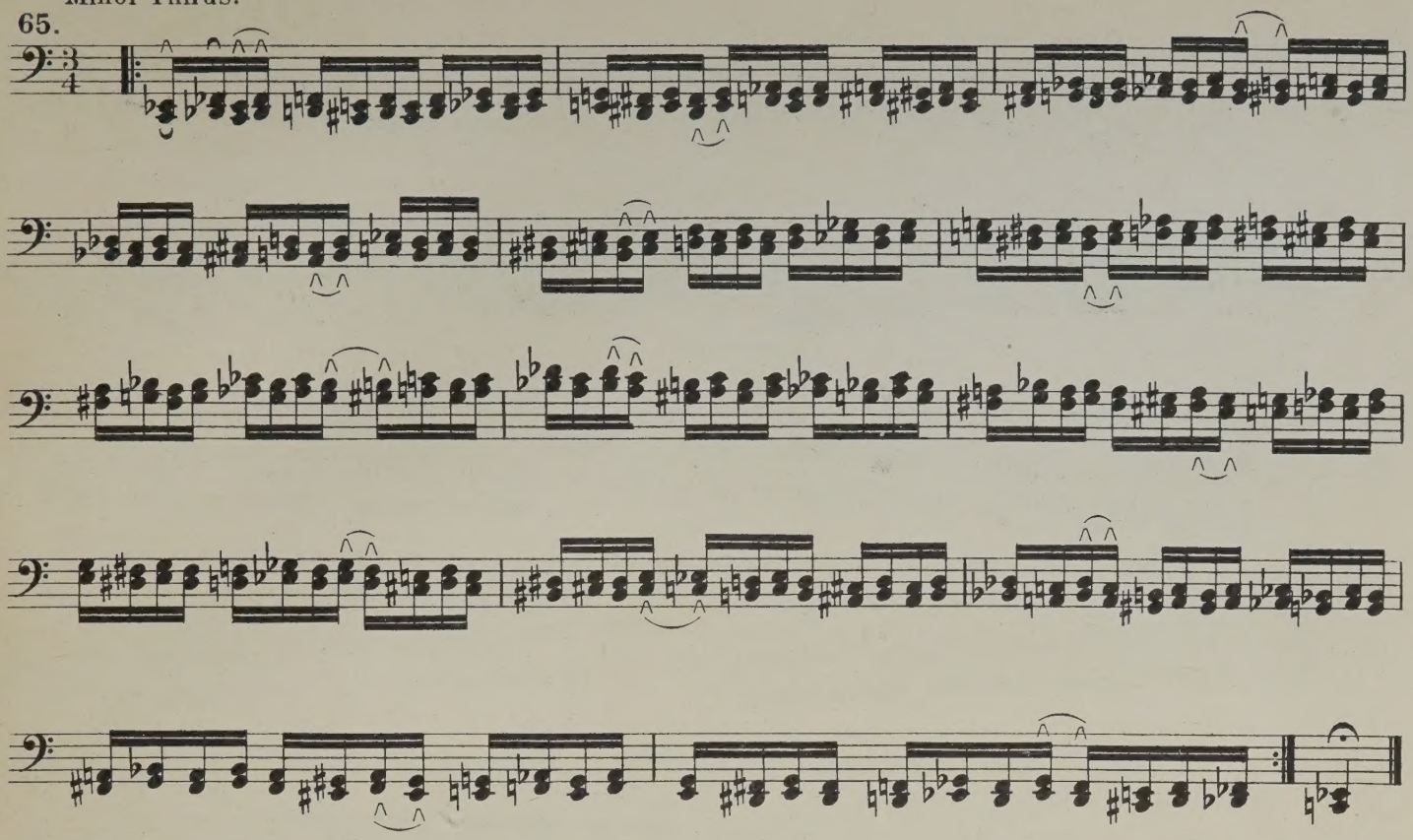


64 h.

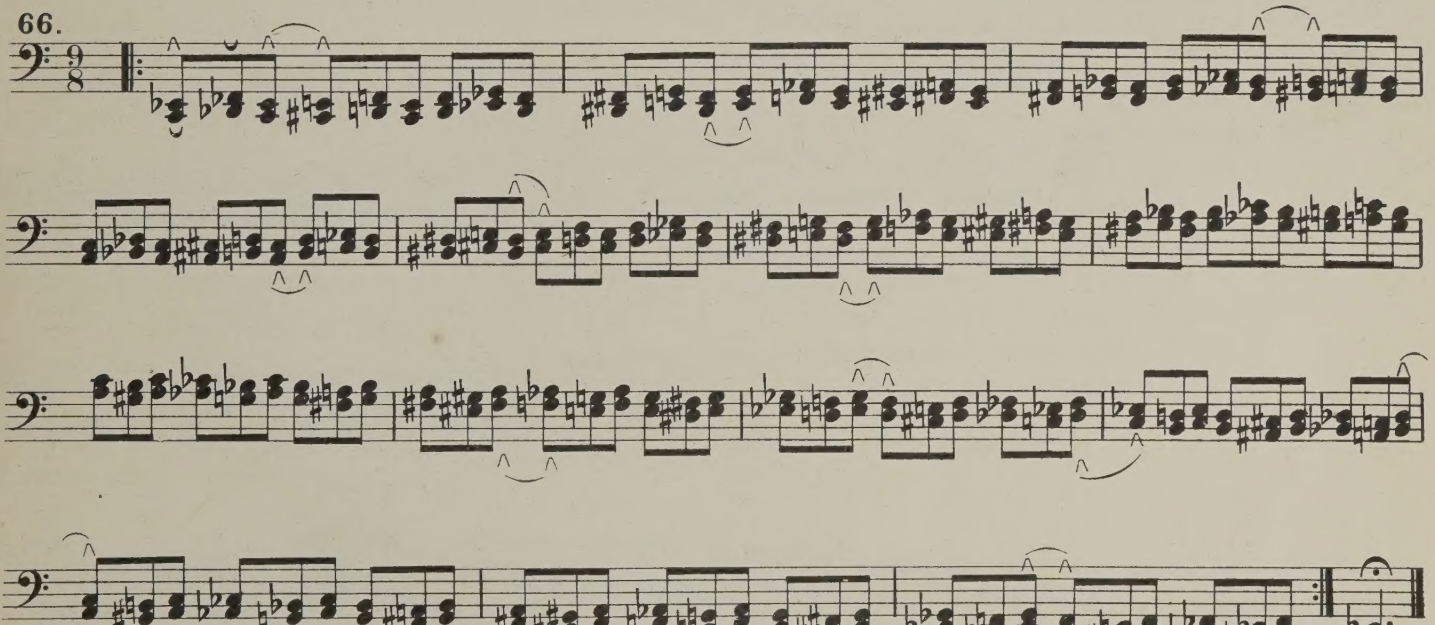


Minor Thirds.

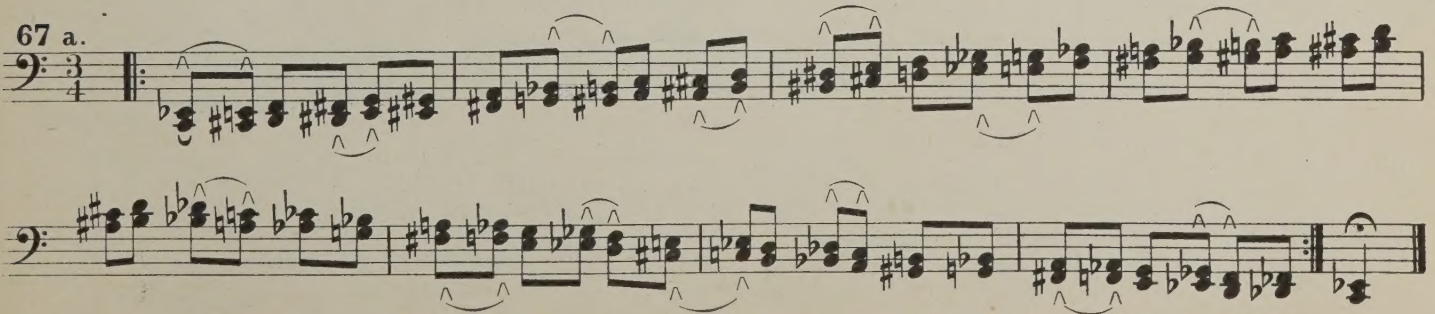
65.

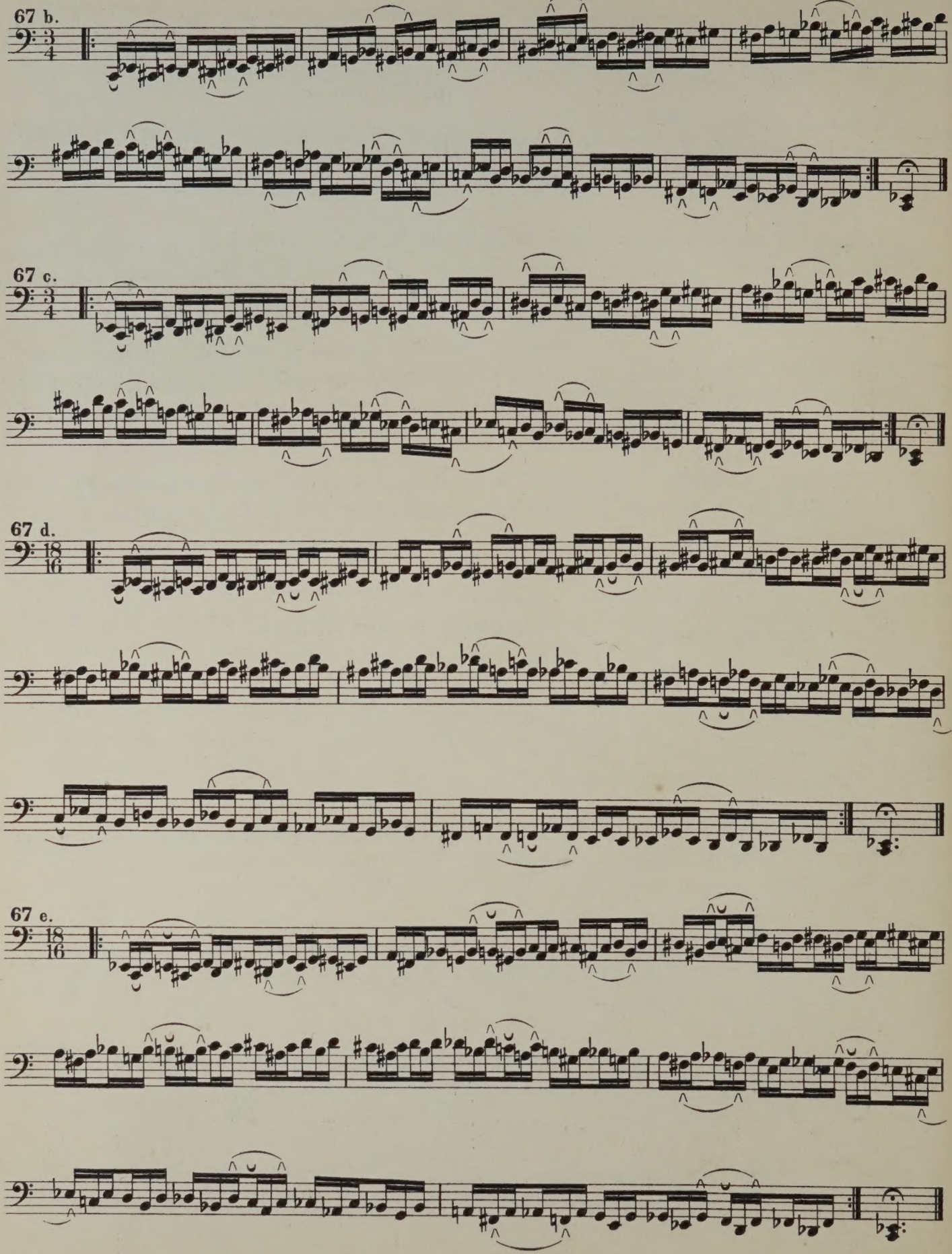


66.

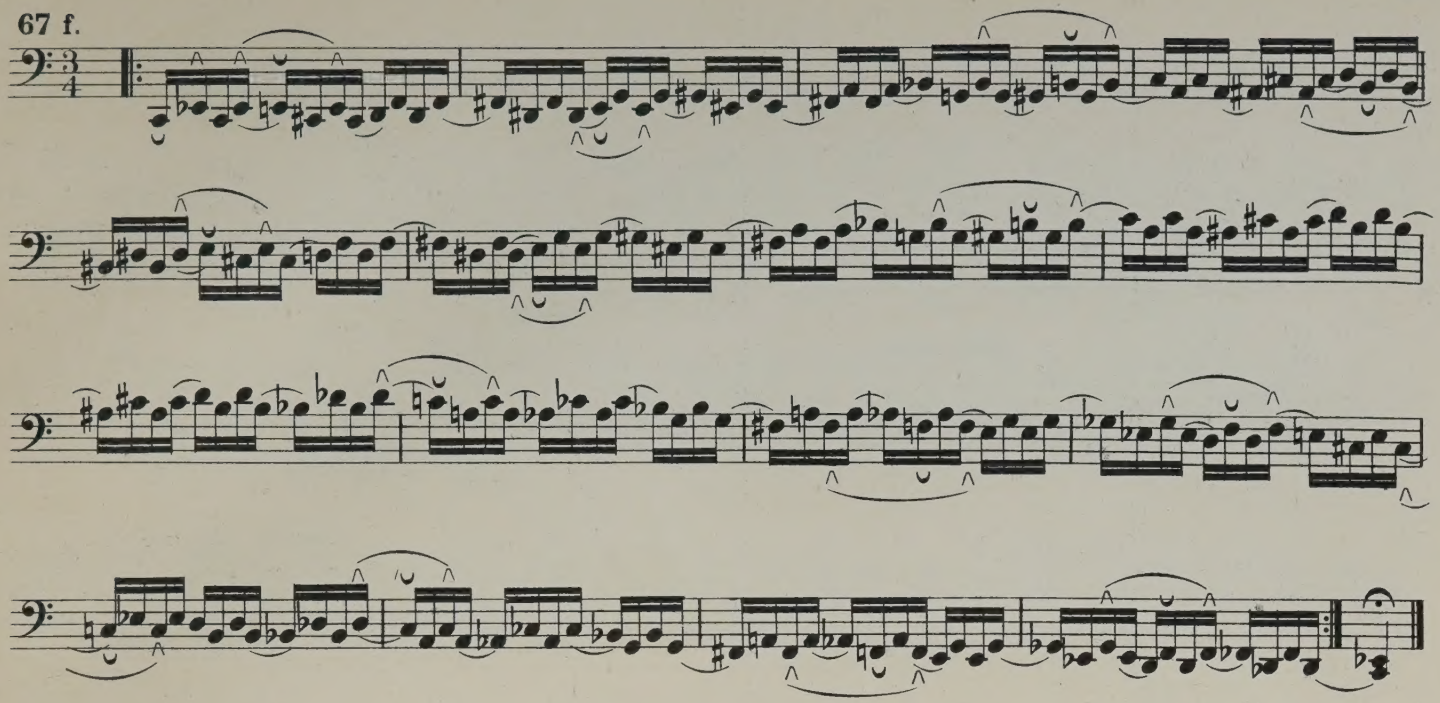


67 a.

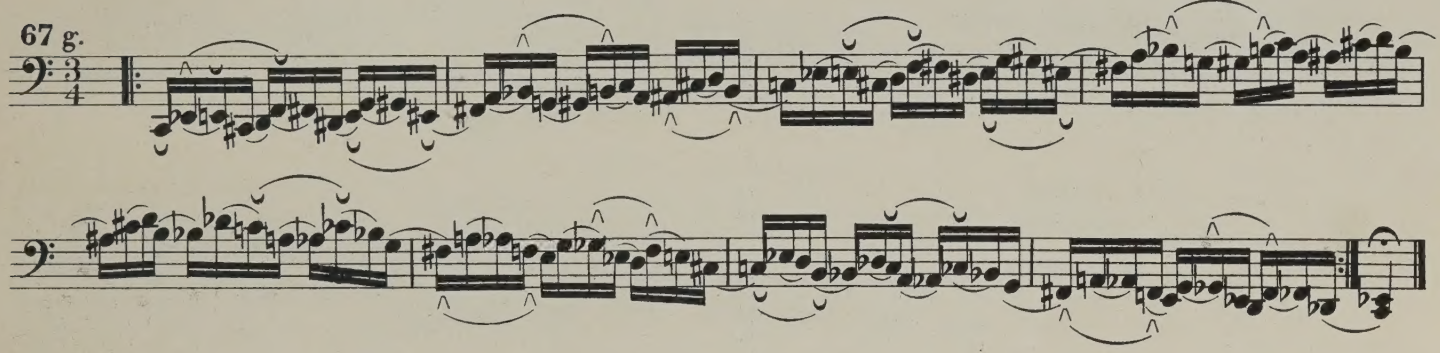



67 b.
67 c.
67 d.
67 e.

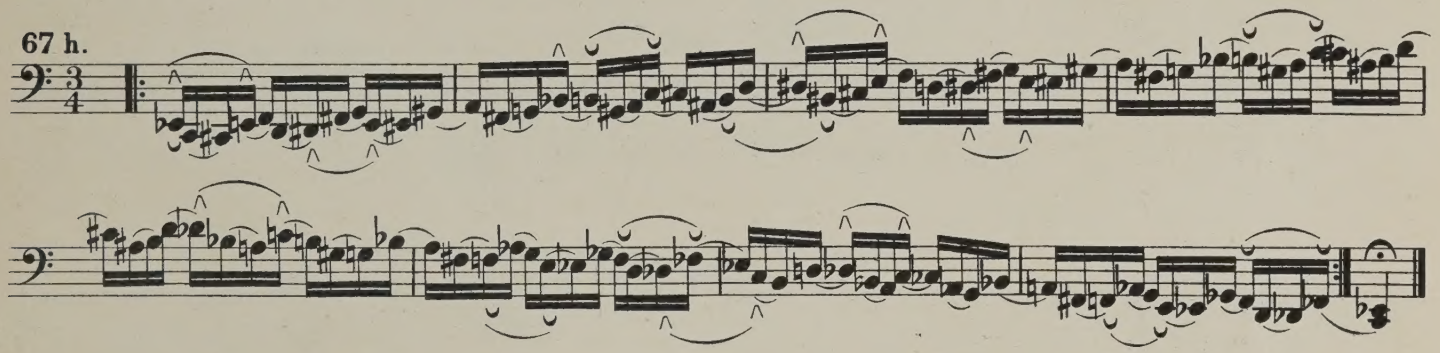
67 f.



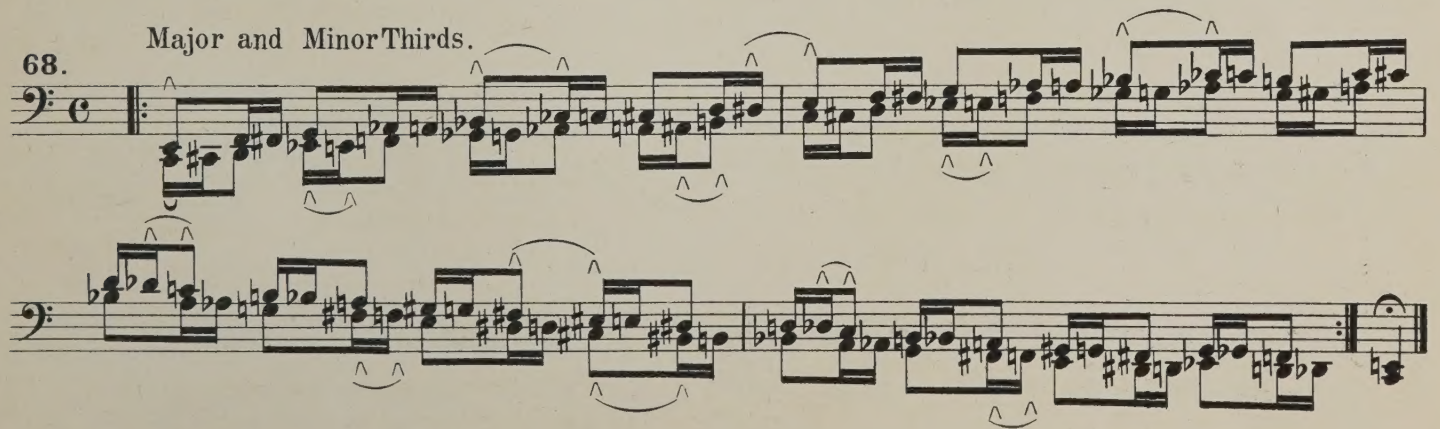
67 g.



67 h.

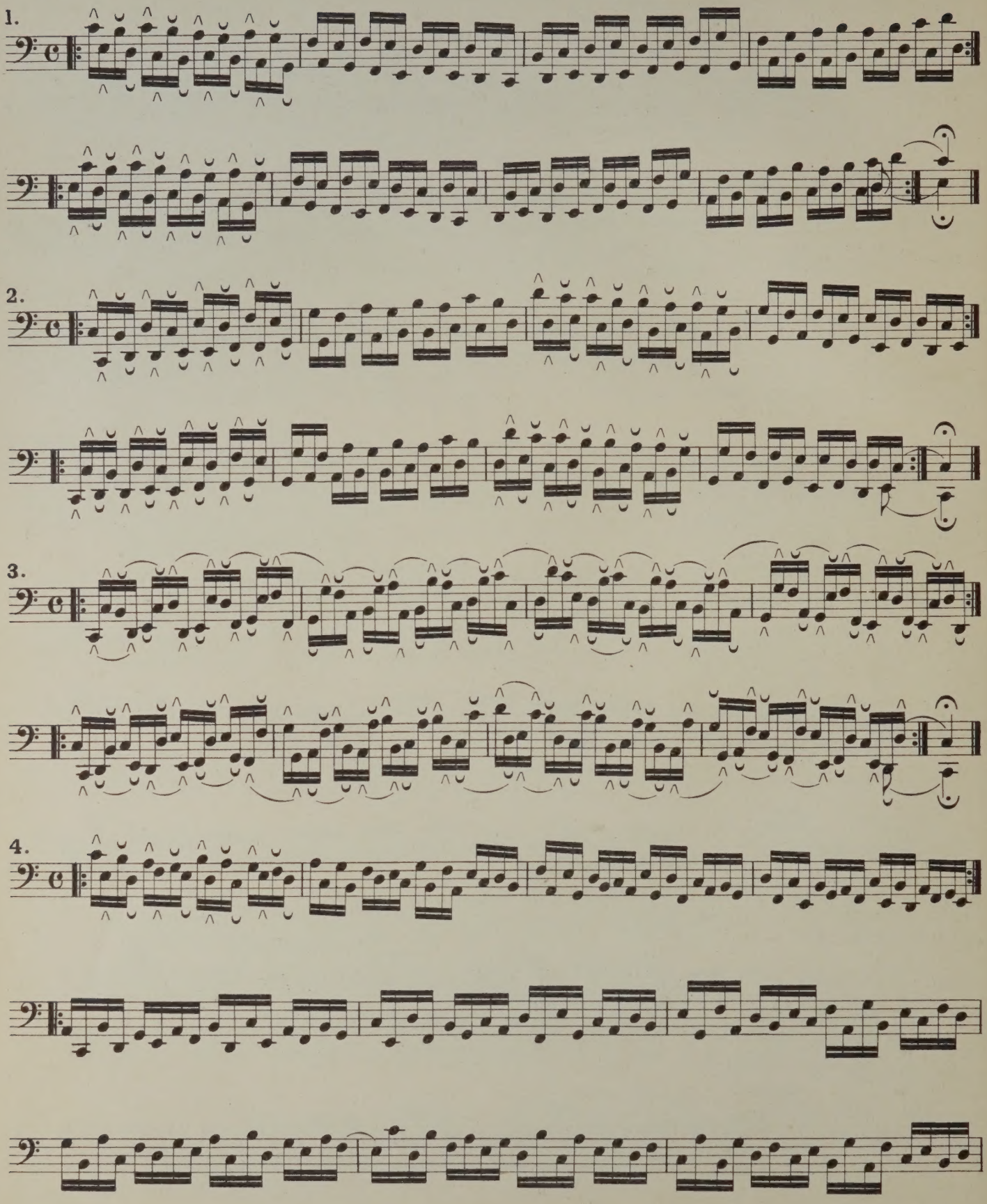


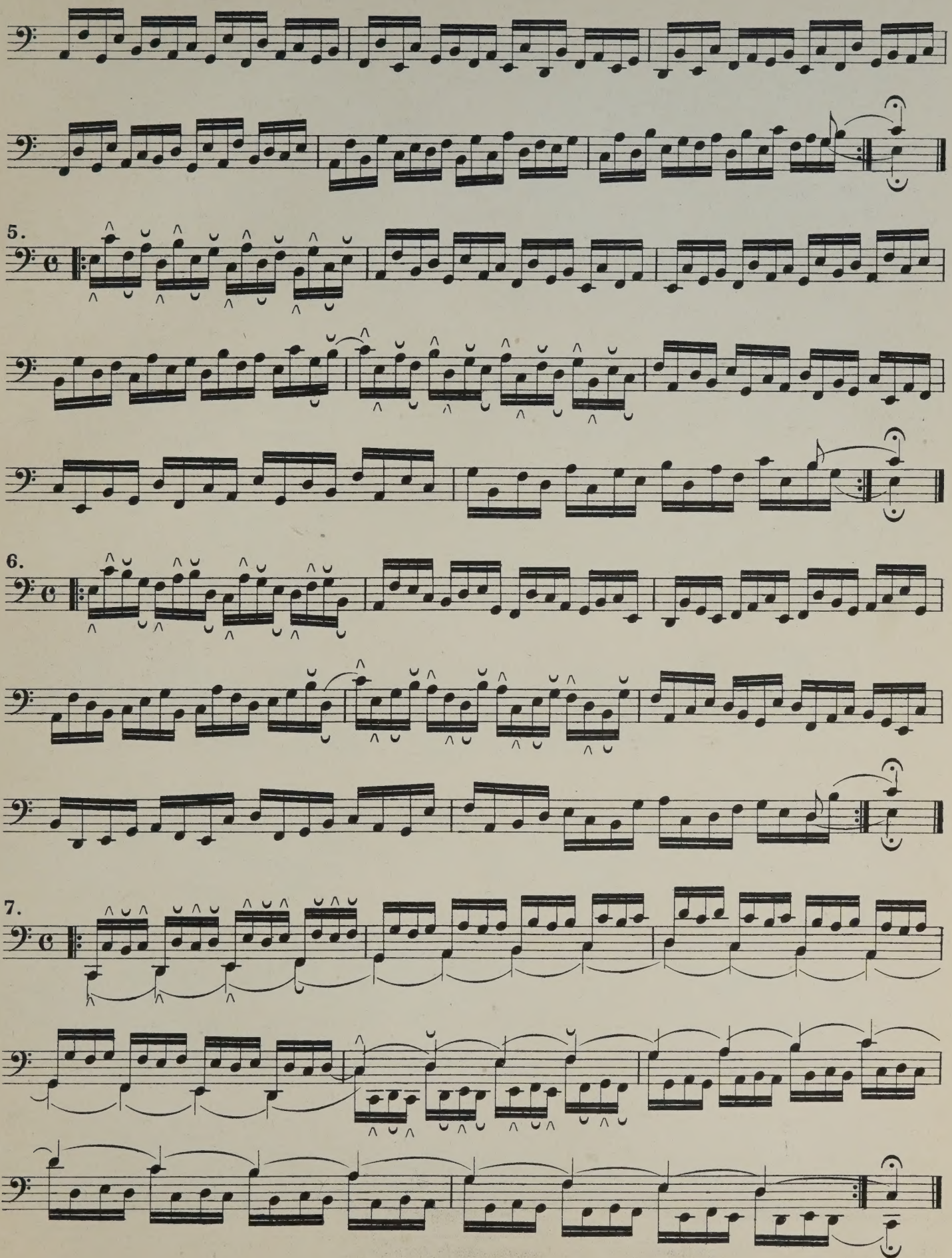
68. Major and Minor Thirds.

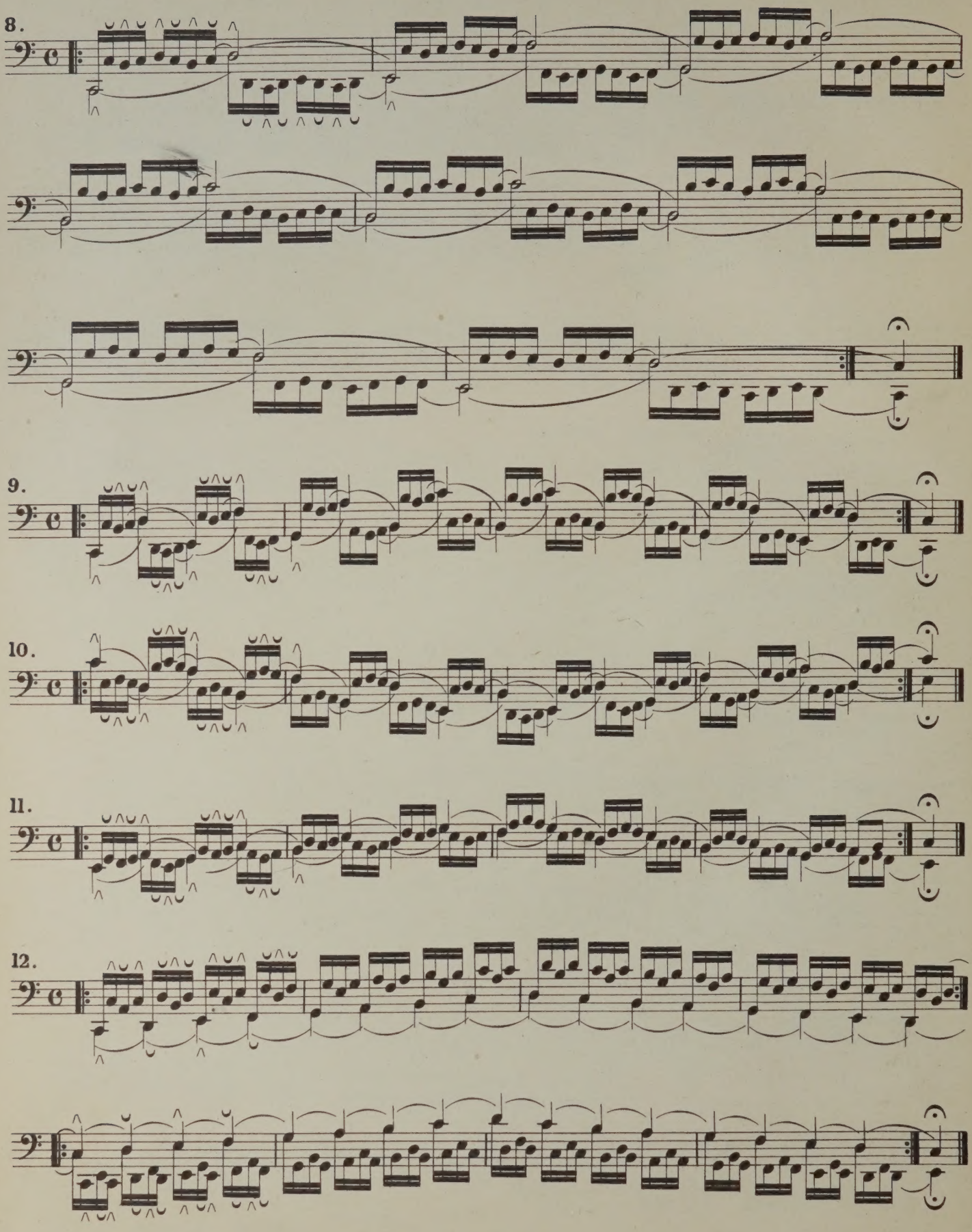


Section III.

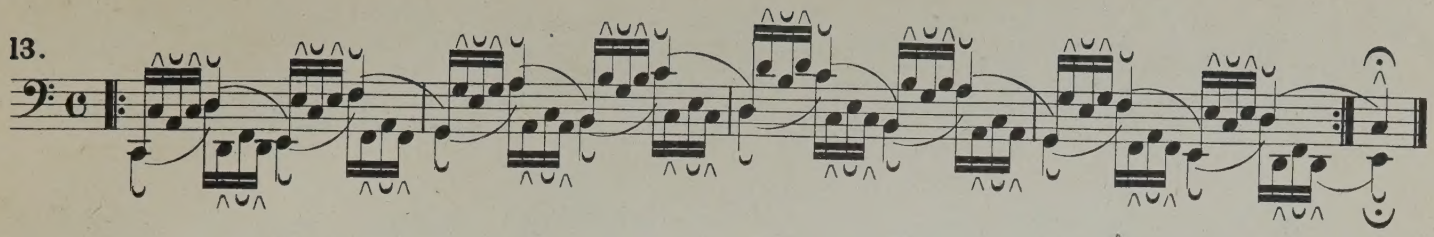
A. Exercises on Mixed Intervals.




5.
6.
7.


8.
9.
10.
11.
12.

13.



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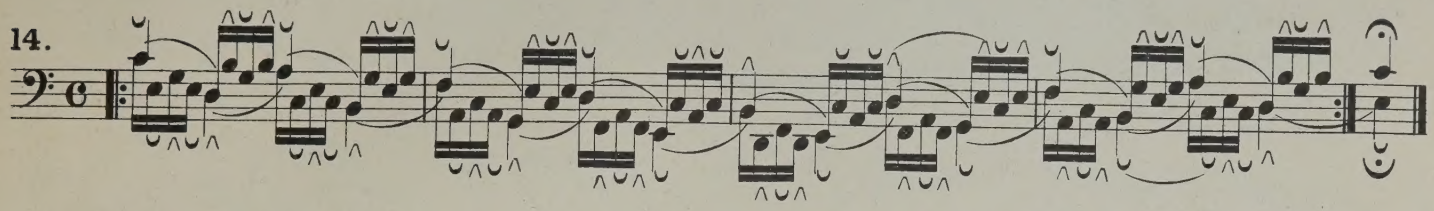

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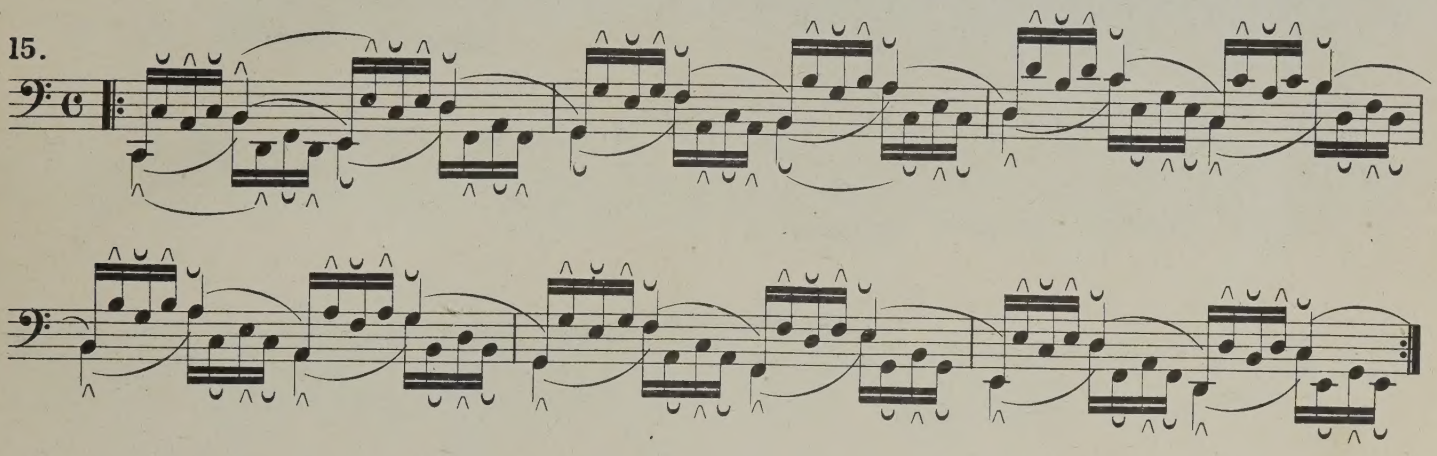
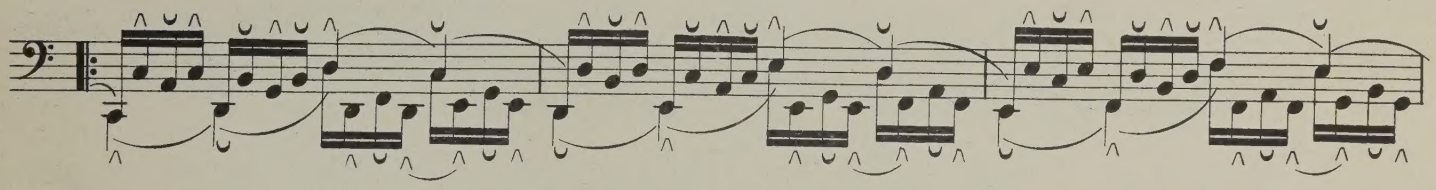
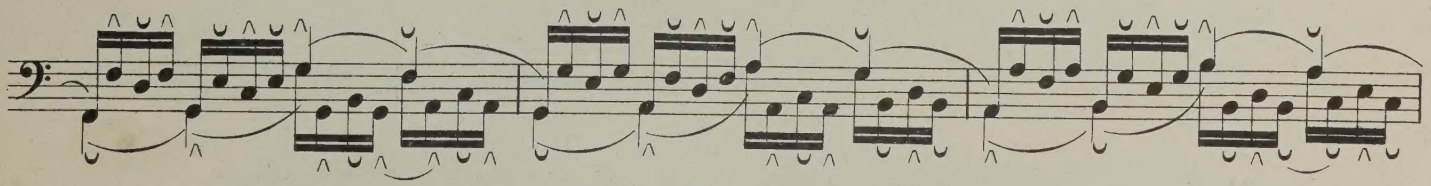
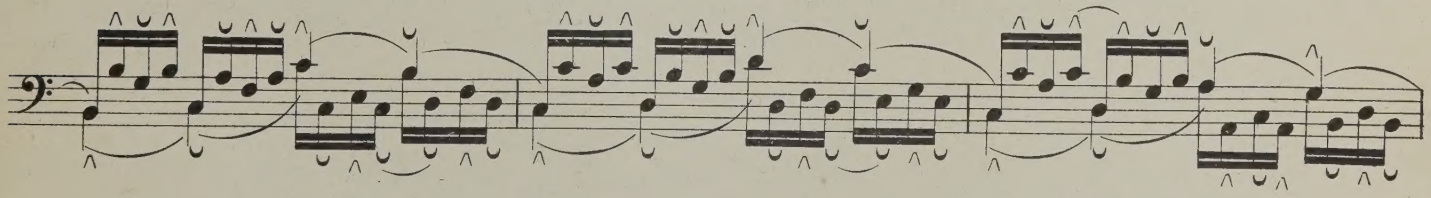
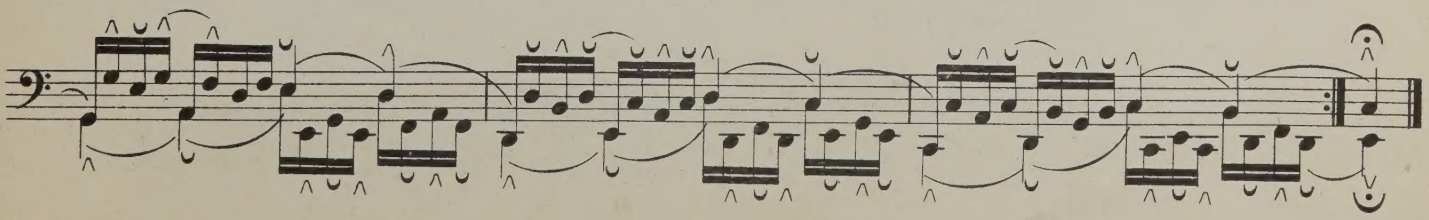
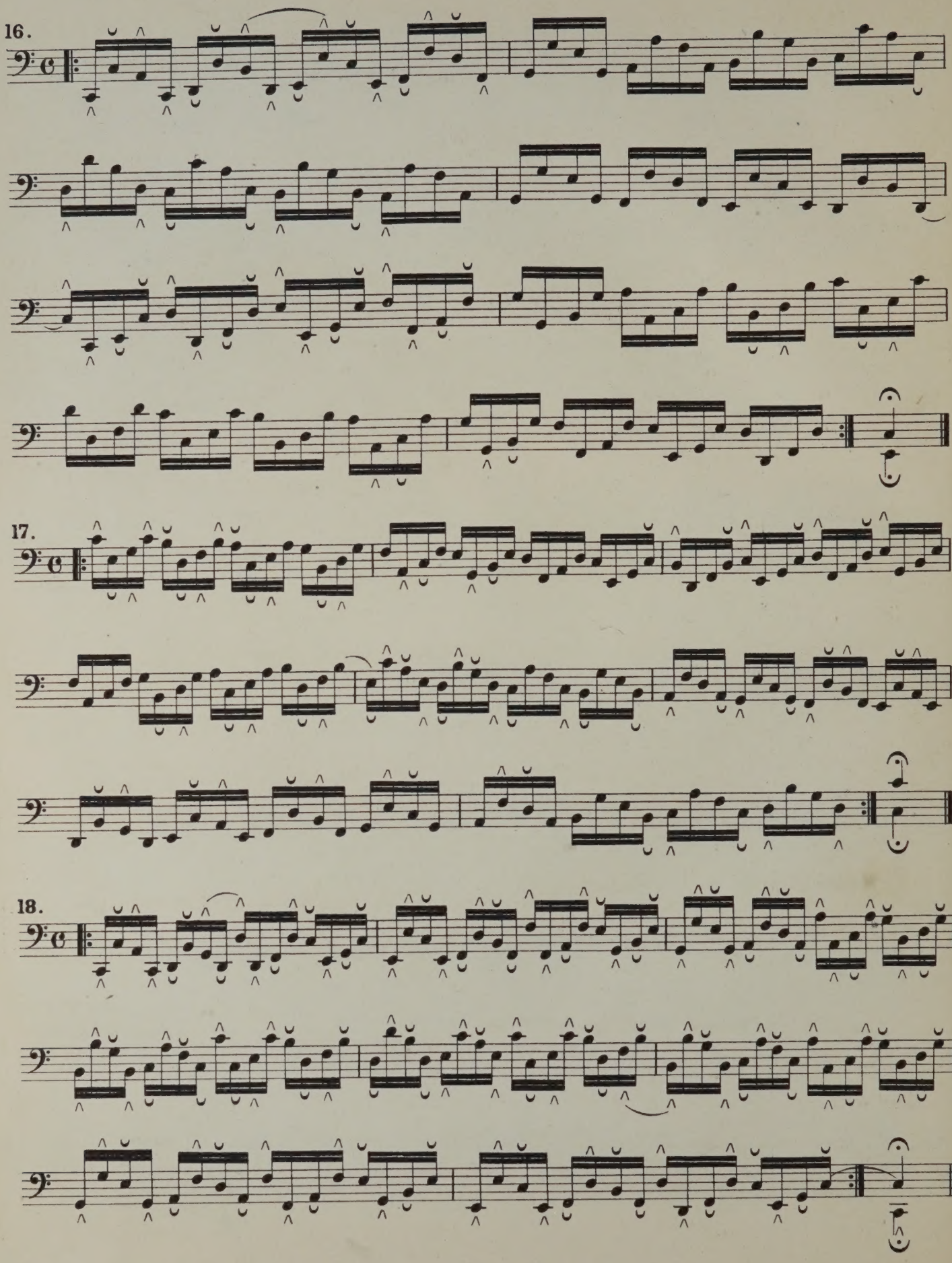




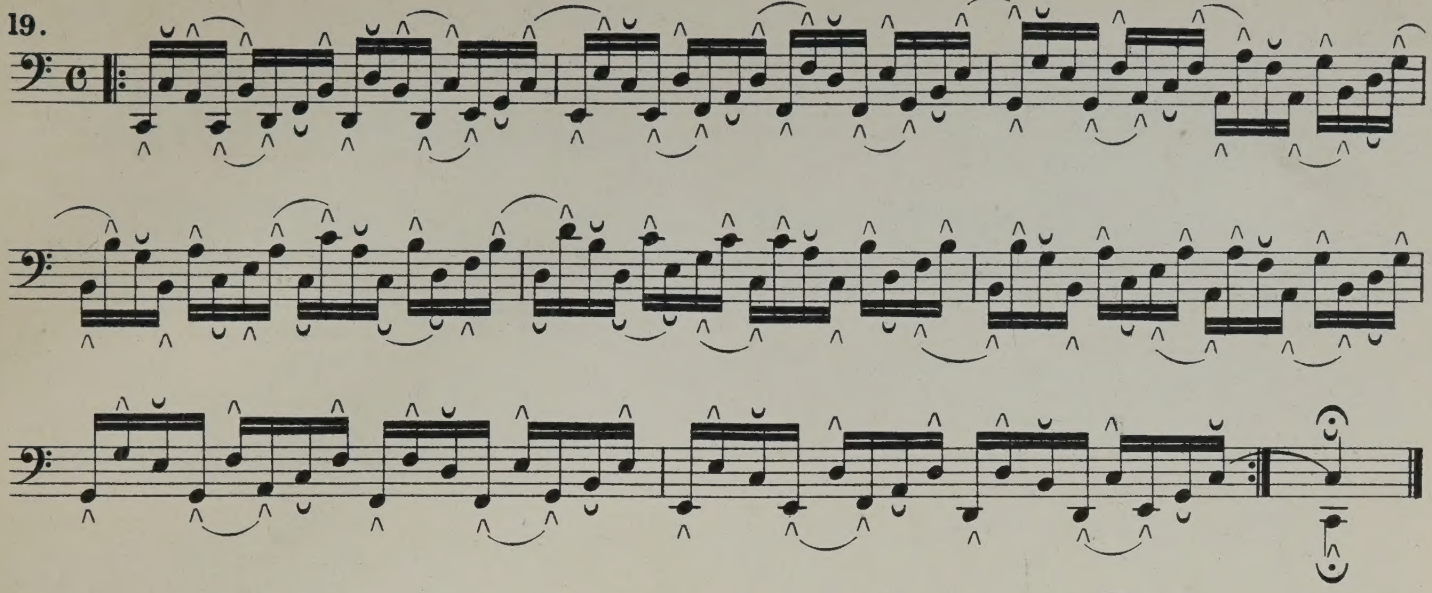




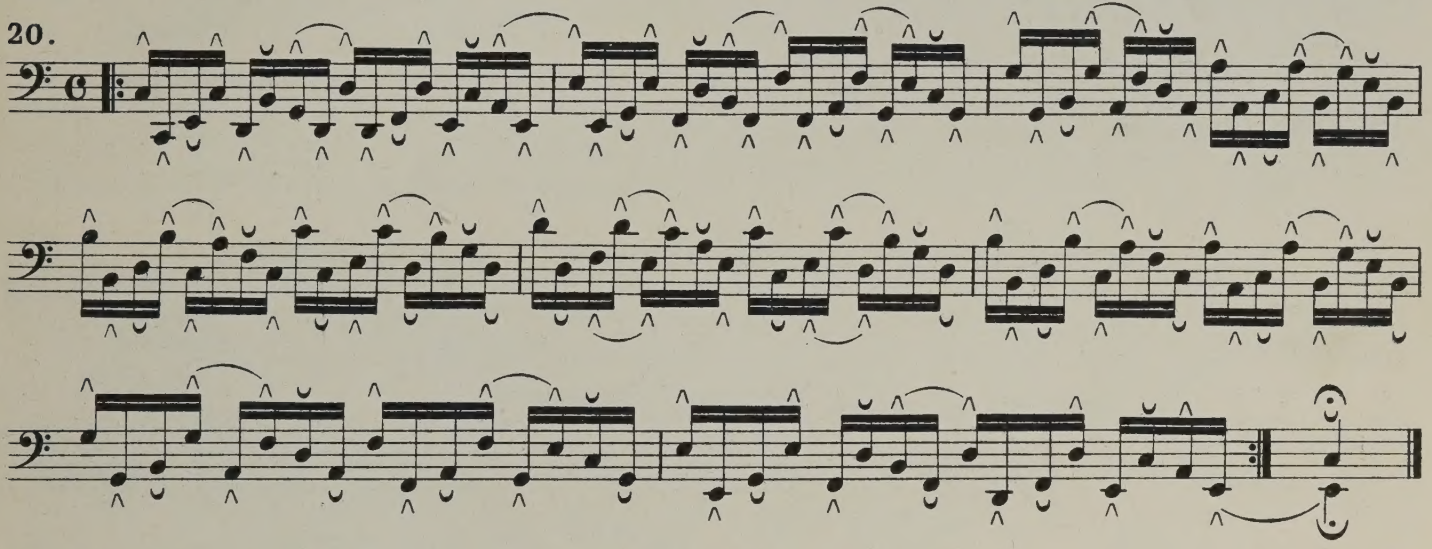



16.
17.
18.

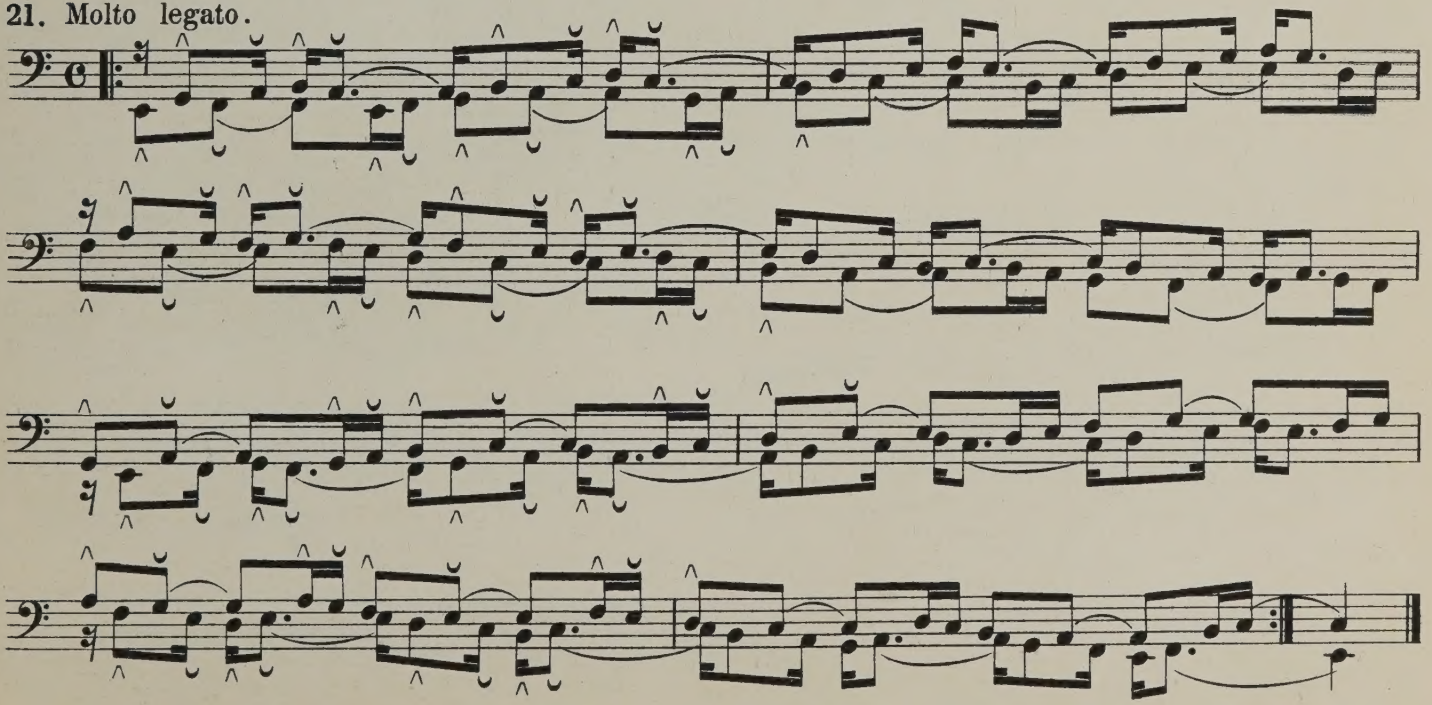
19.



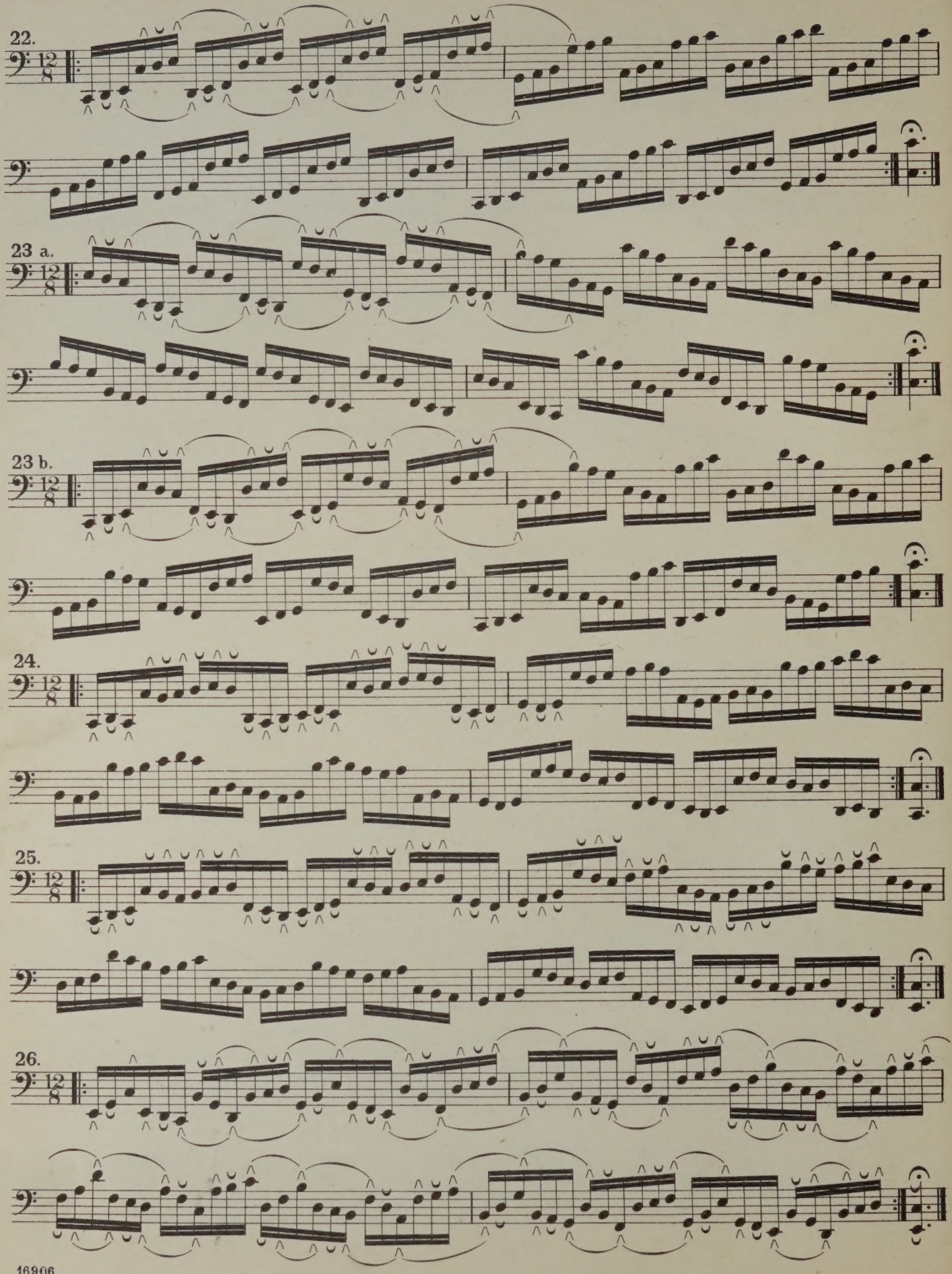
20.



21. Molto legato.

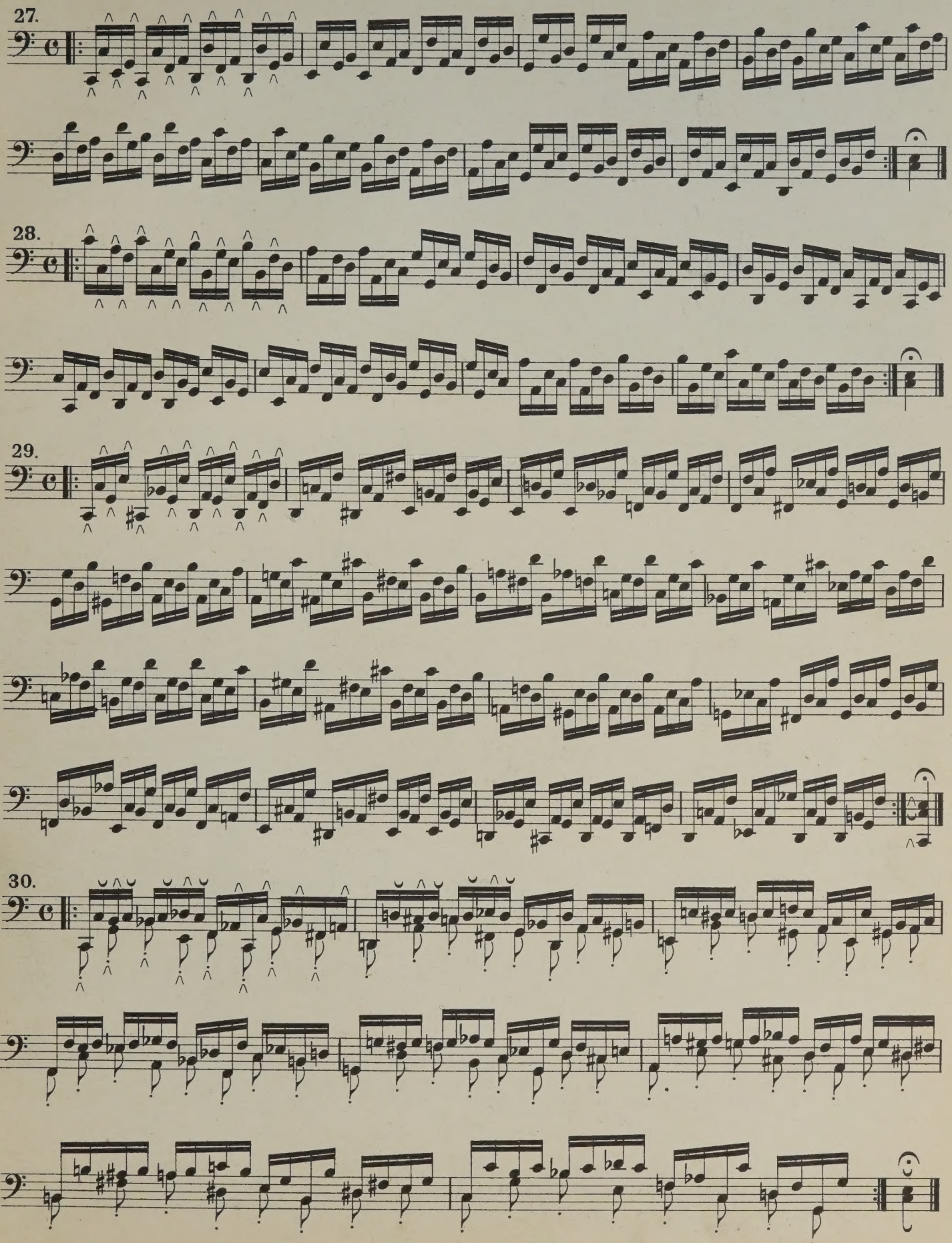


B. Exercises with Mixed Figures.

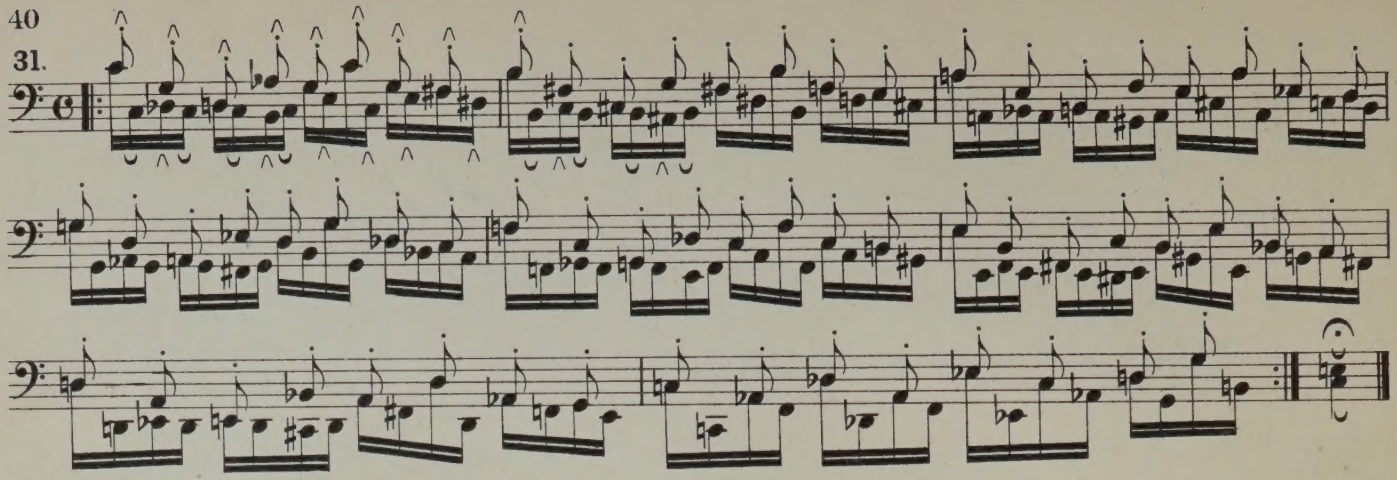


C. Miscellaneous Exercises.

(For heels alone, or for toes alone.)

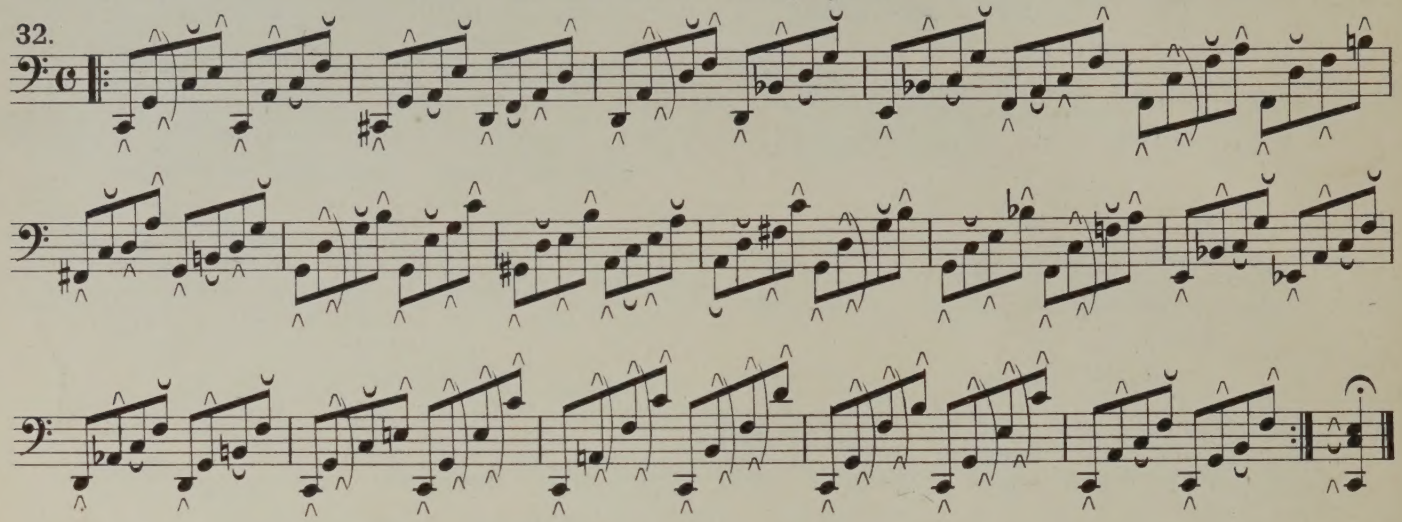


31.



D. Exercises on Changing Feet.

32.



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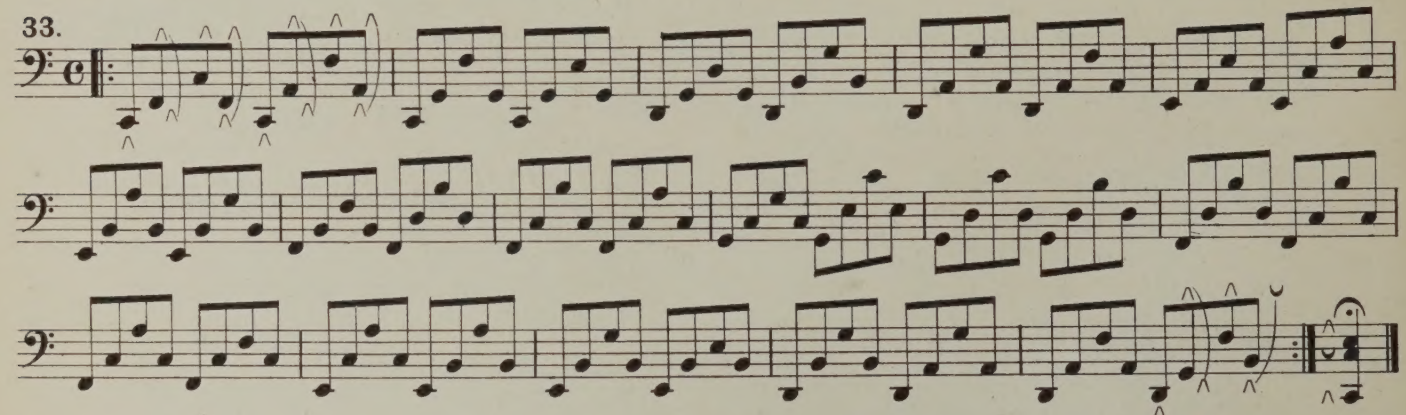

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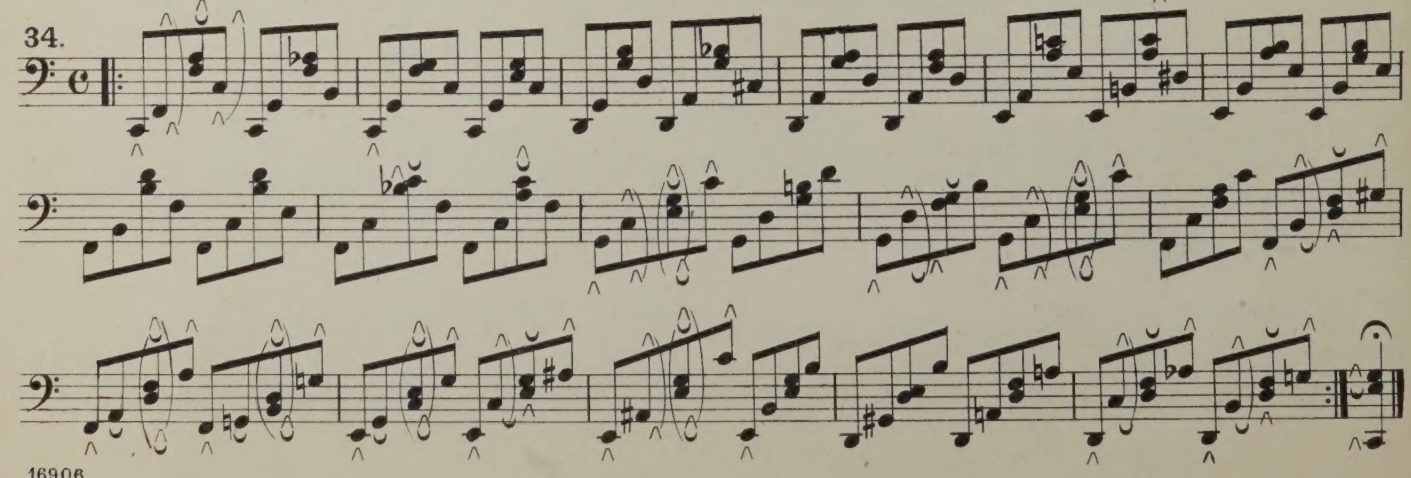
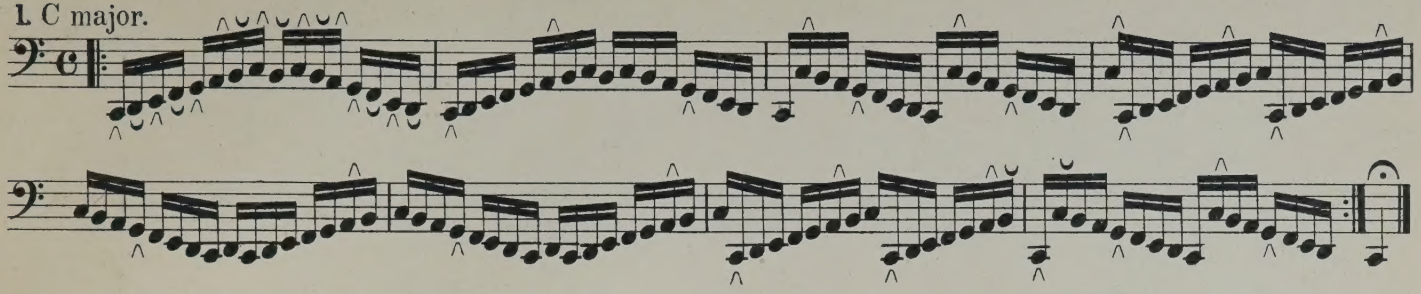


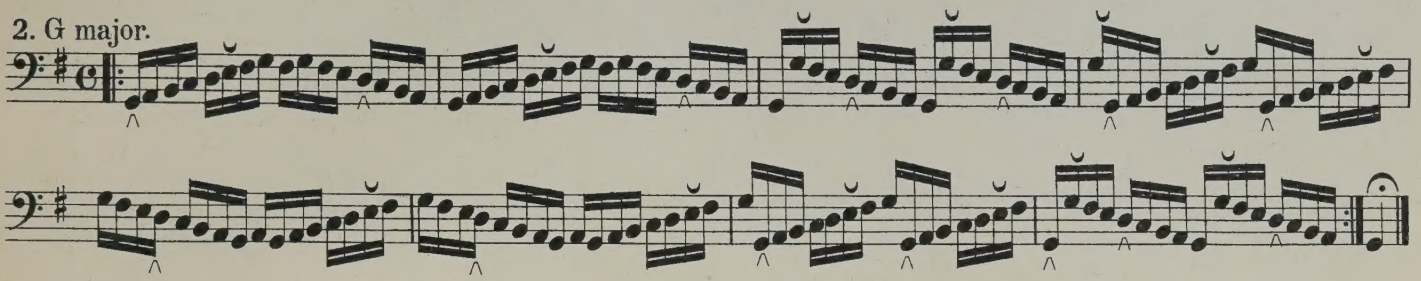
Section IV.

A. Major Scales.

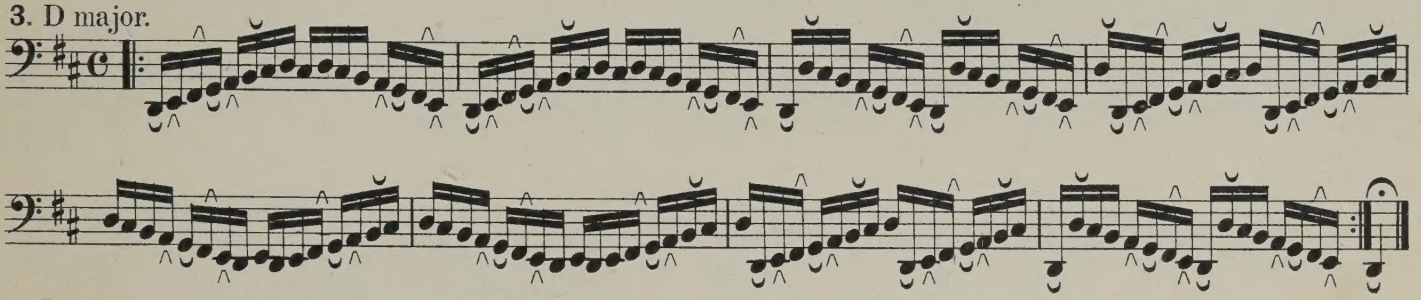
1. C major.



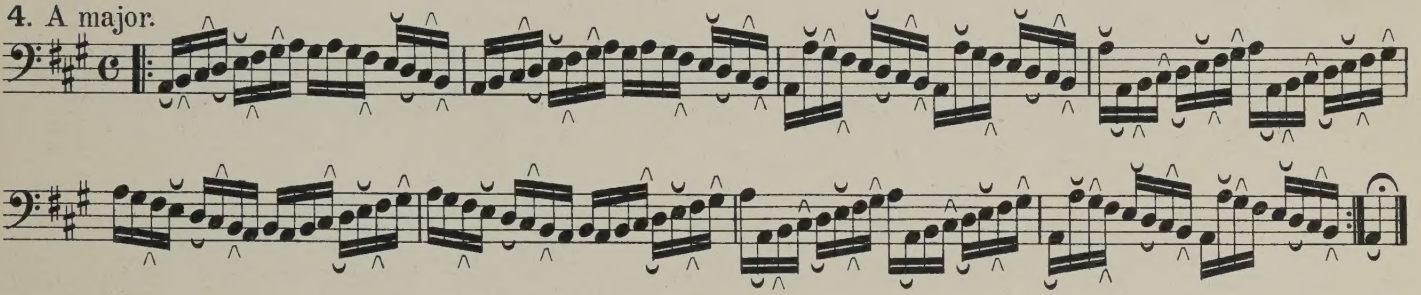
2. G major.



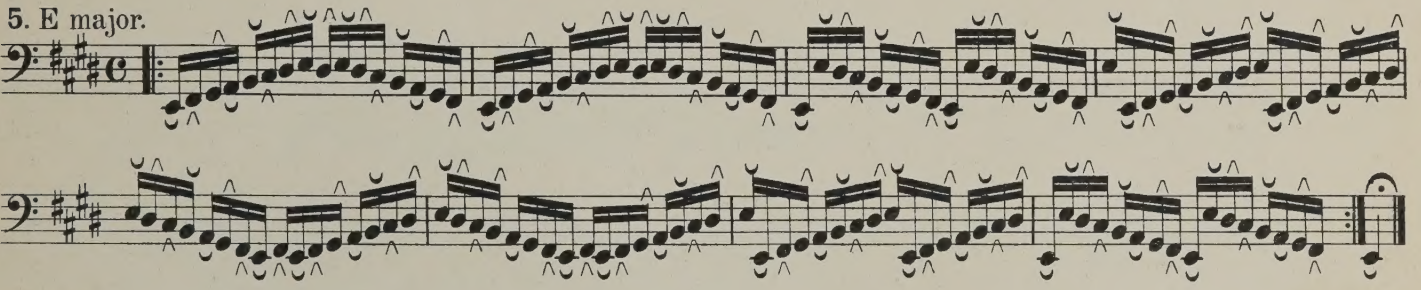
3. D major.



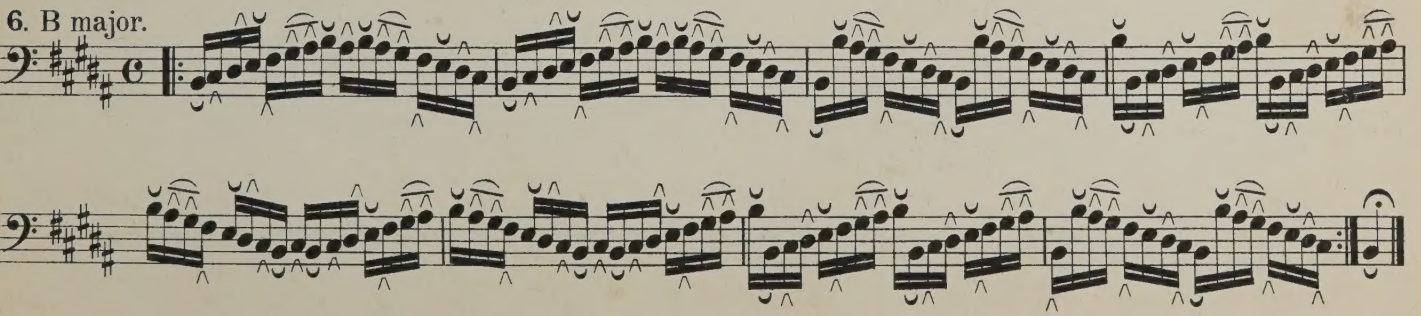
4. A major.



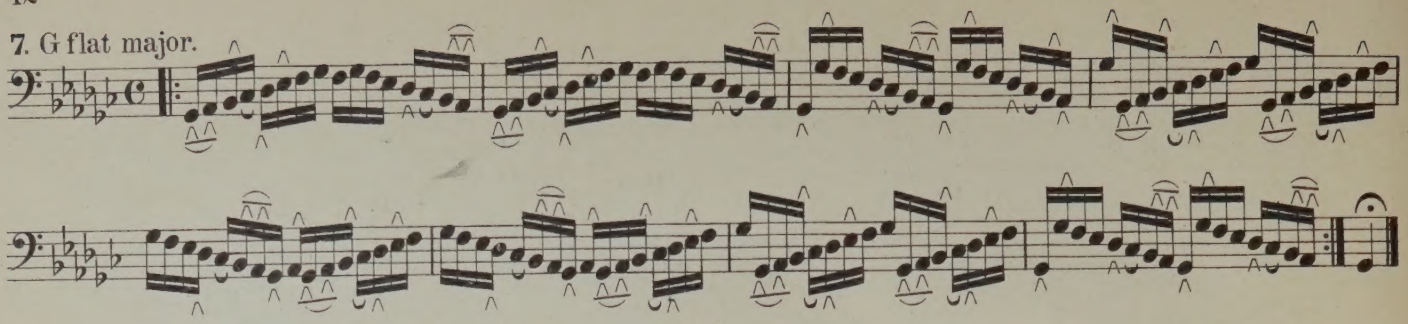
5. E major.



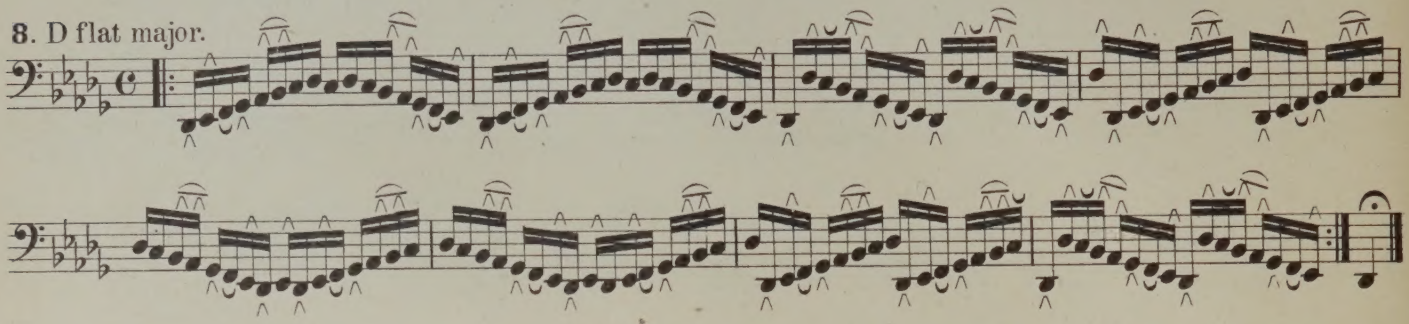
6. B major.



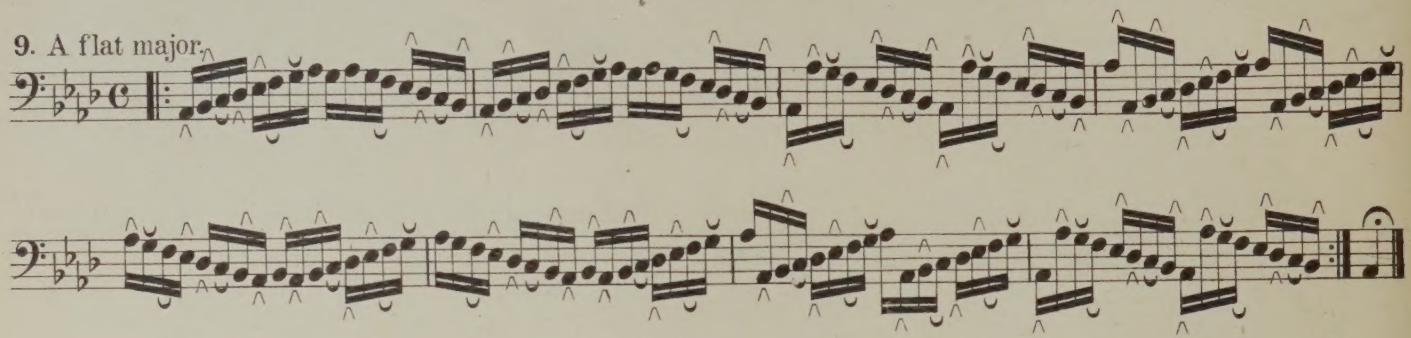
7. G flat major.



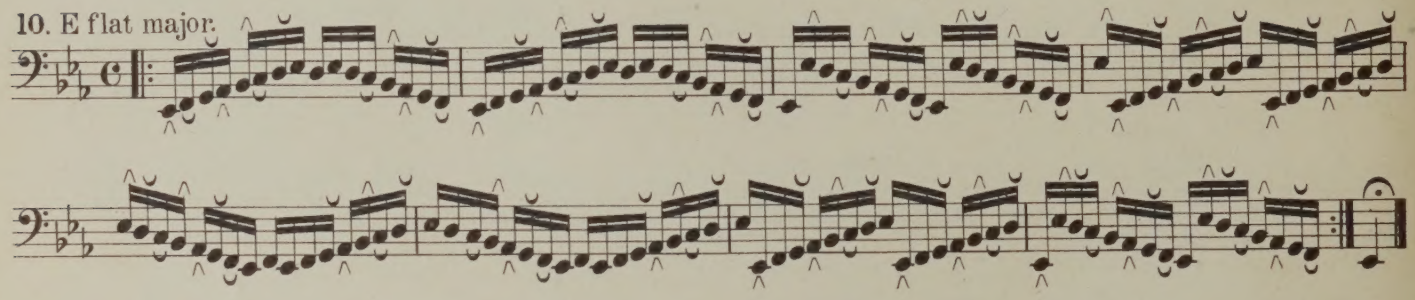
8. D flat major.



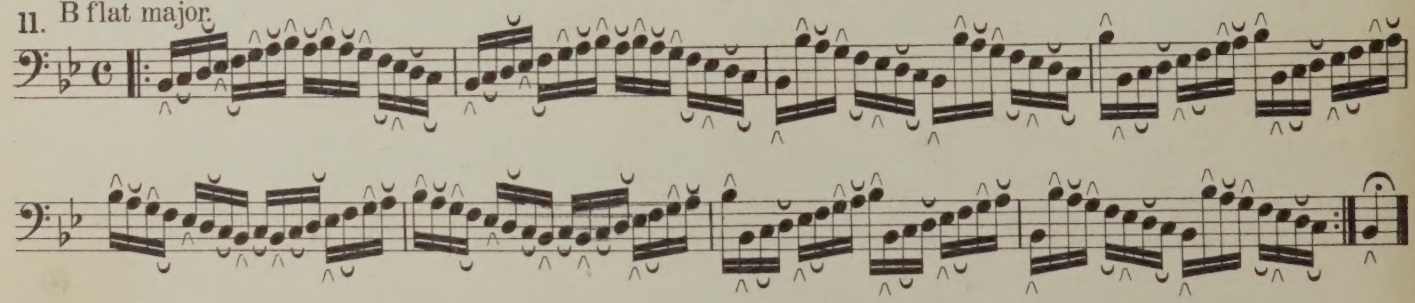
9. A flat major.



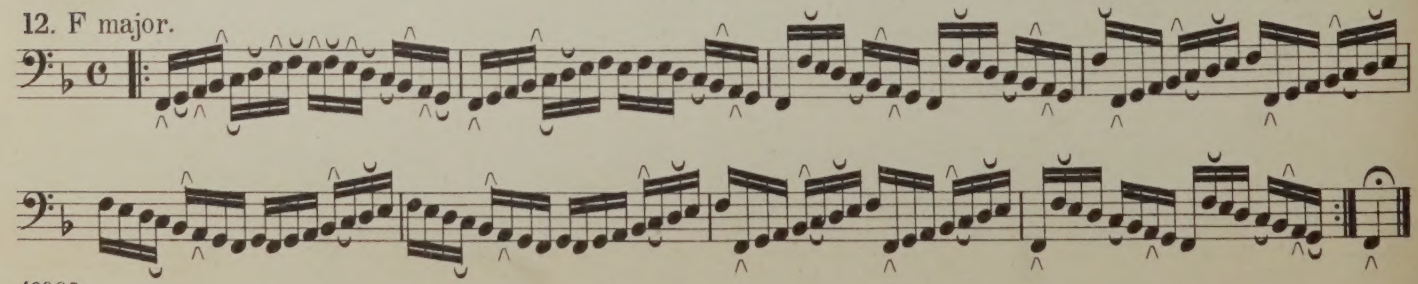
10. E flat major.



11. B flat major.

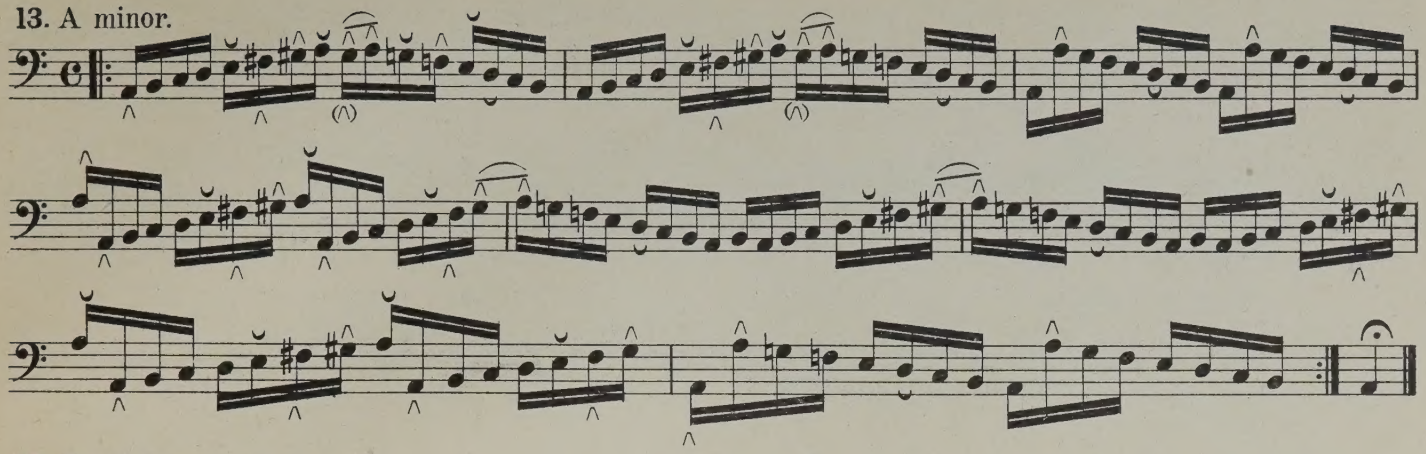


12. F major.

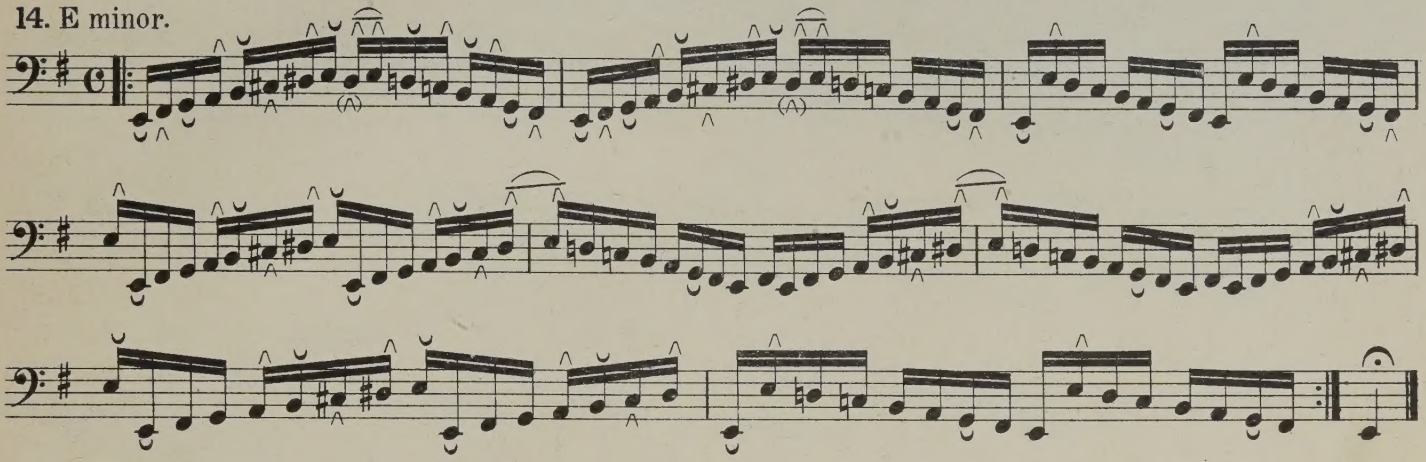


B. Melodic Minor Scales.

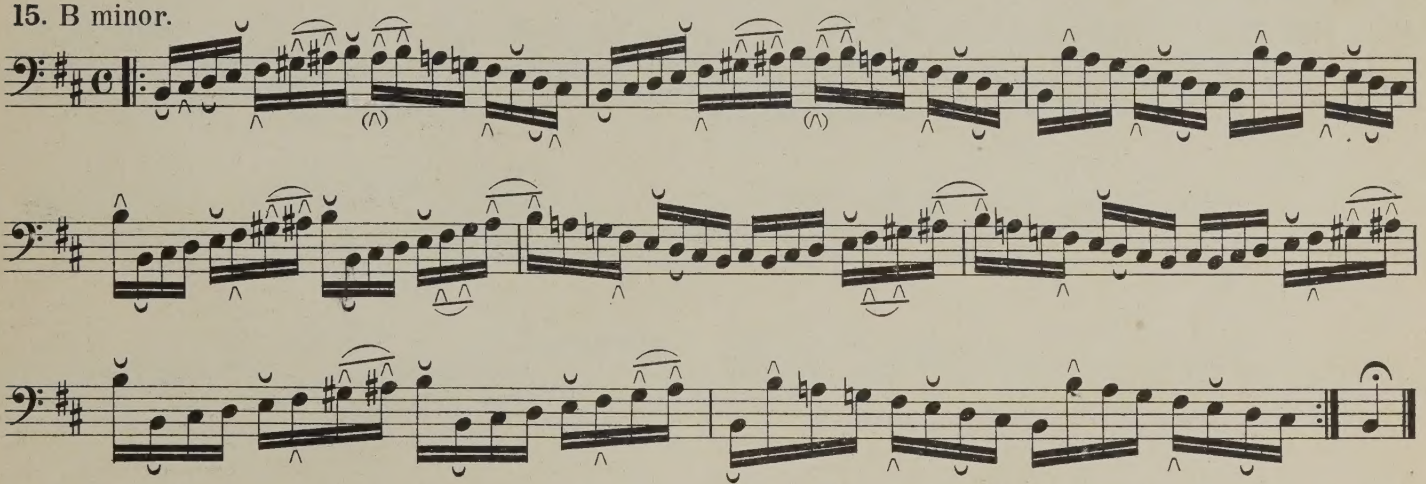
13. A minor.



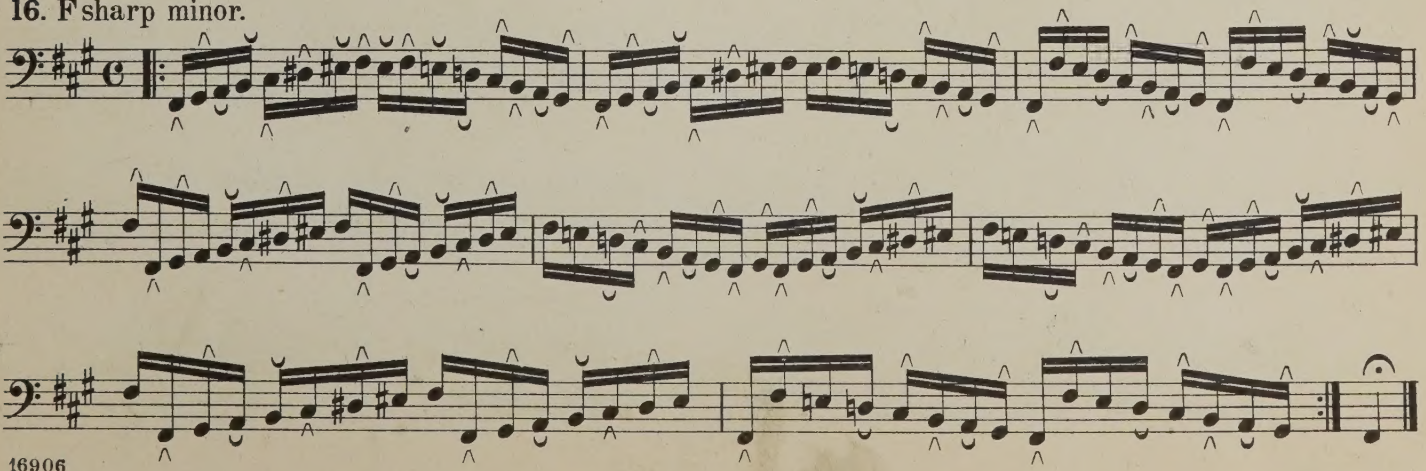
14. E minor.



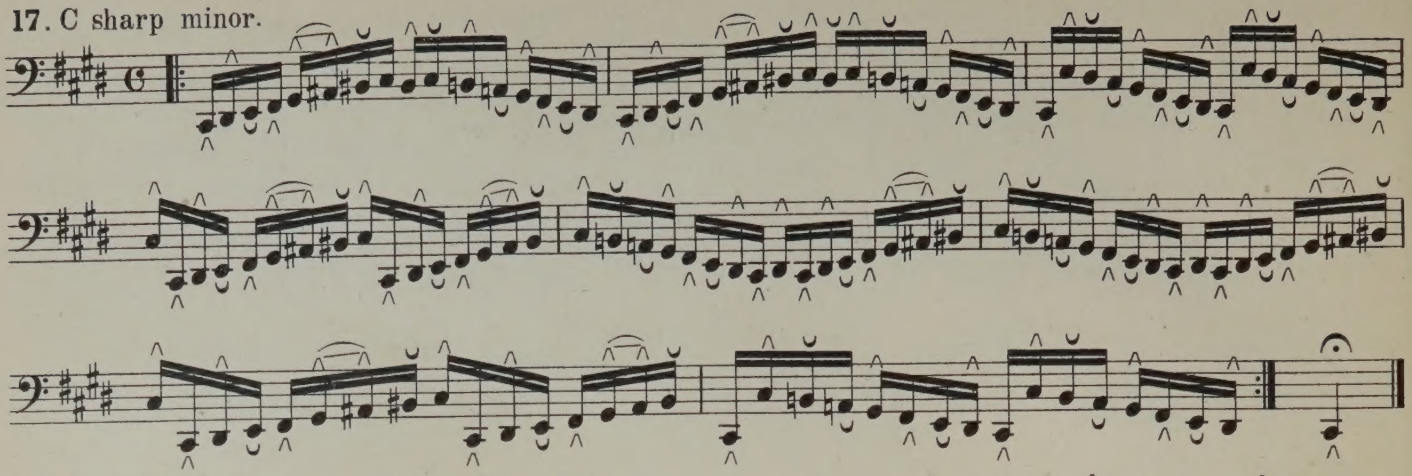
15. B minor.



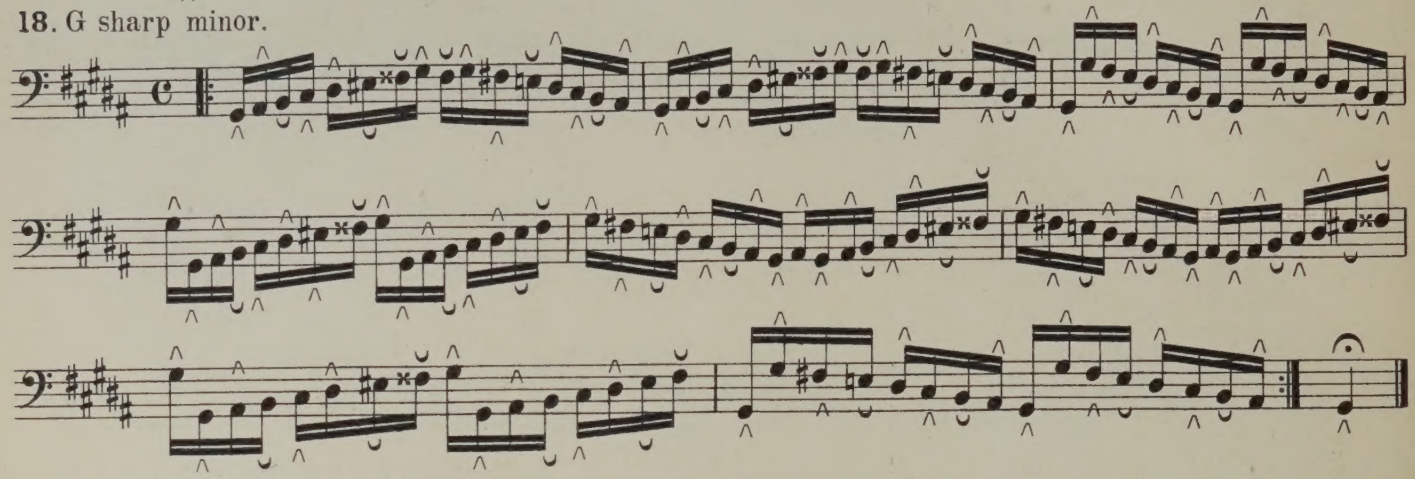
16. F sharp minor.



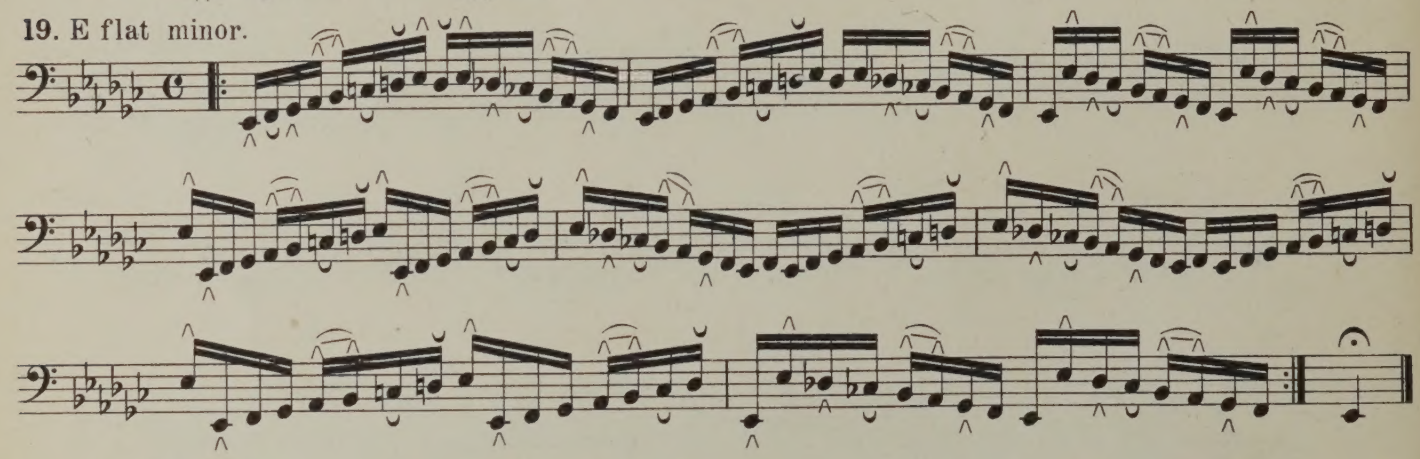
17. C sharp minor.



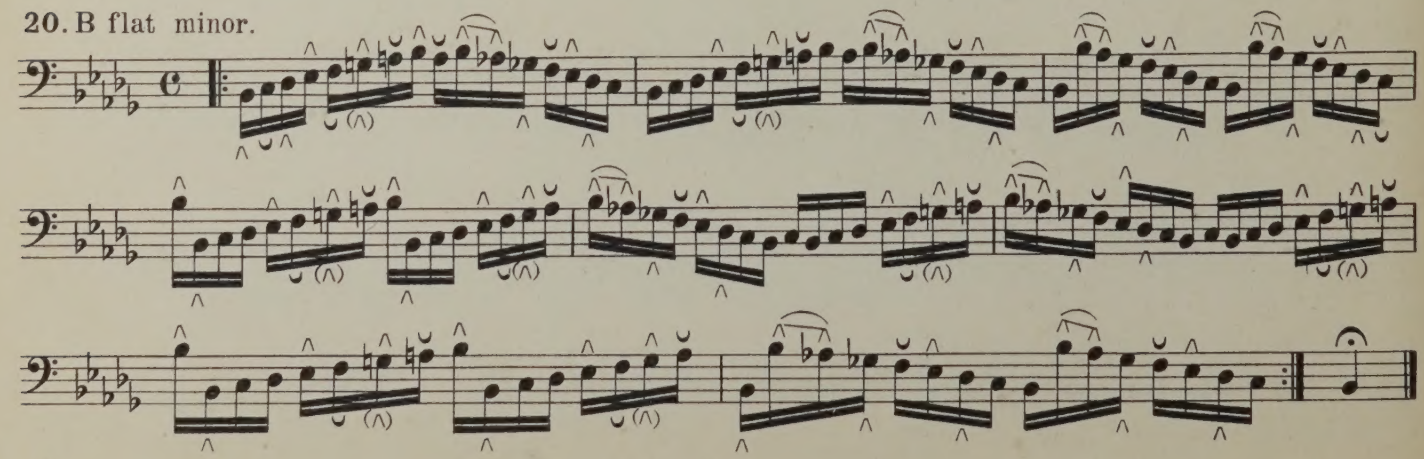
18. G sharp minor.



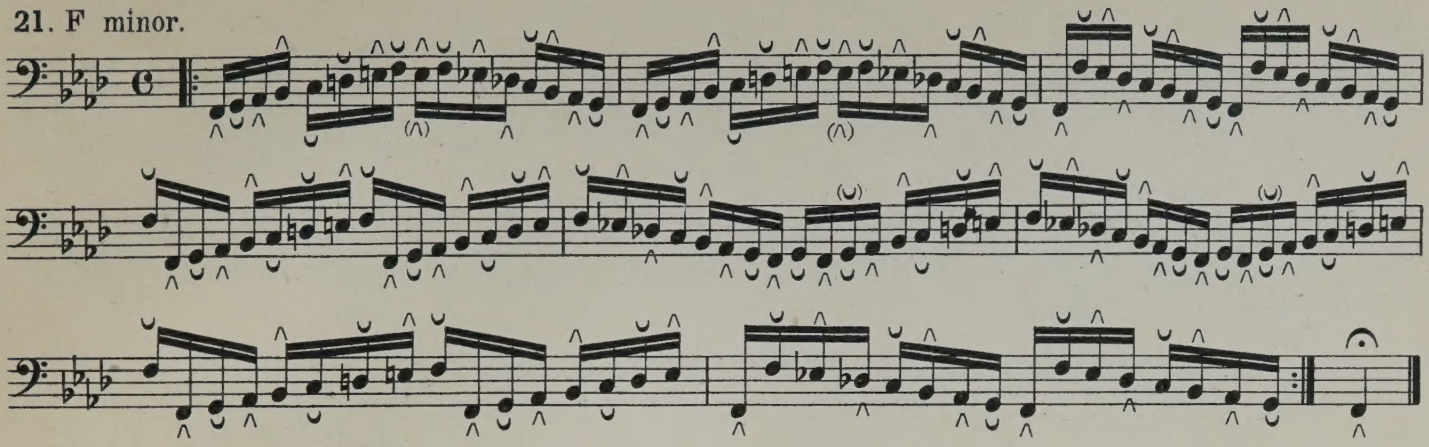
19. E flat minor.



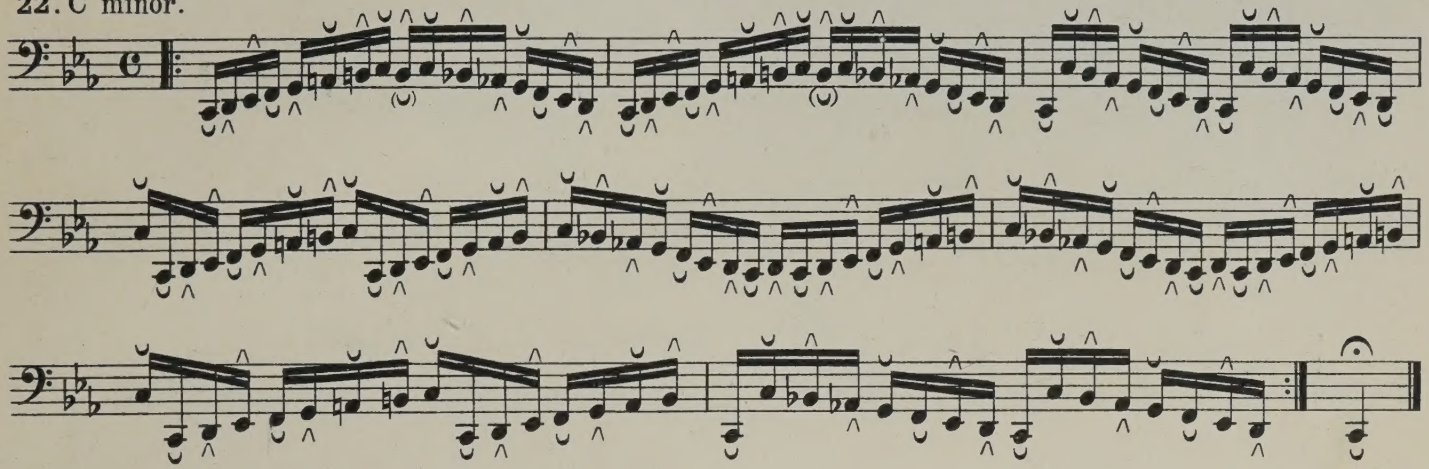
20. B flat minor.



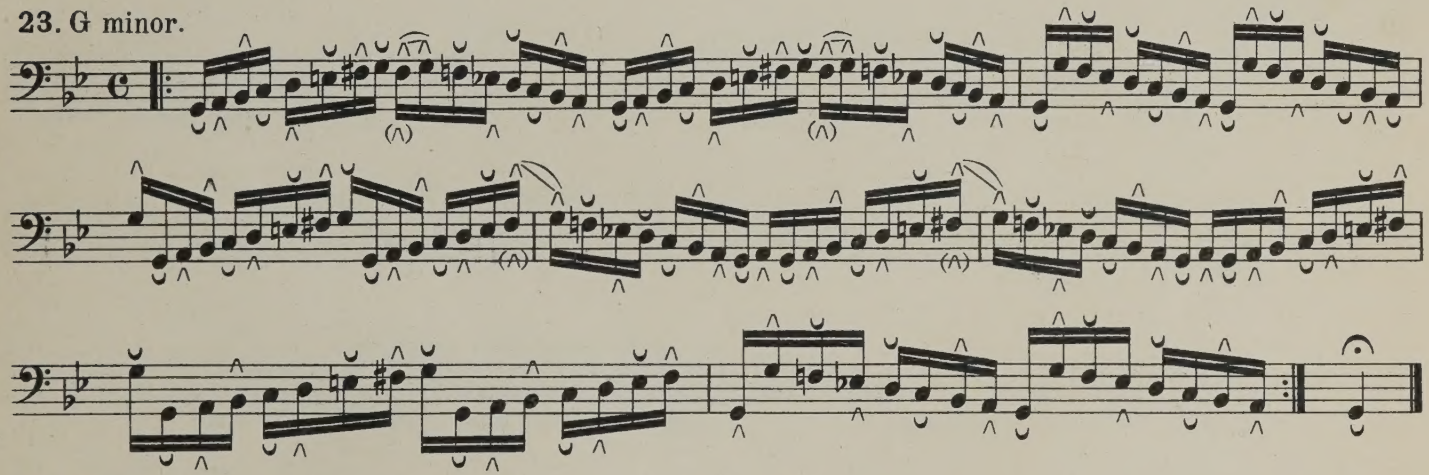
21. F minor.



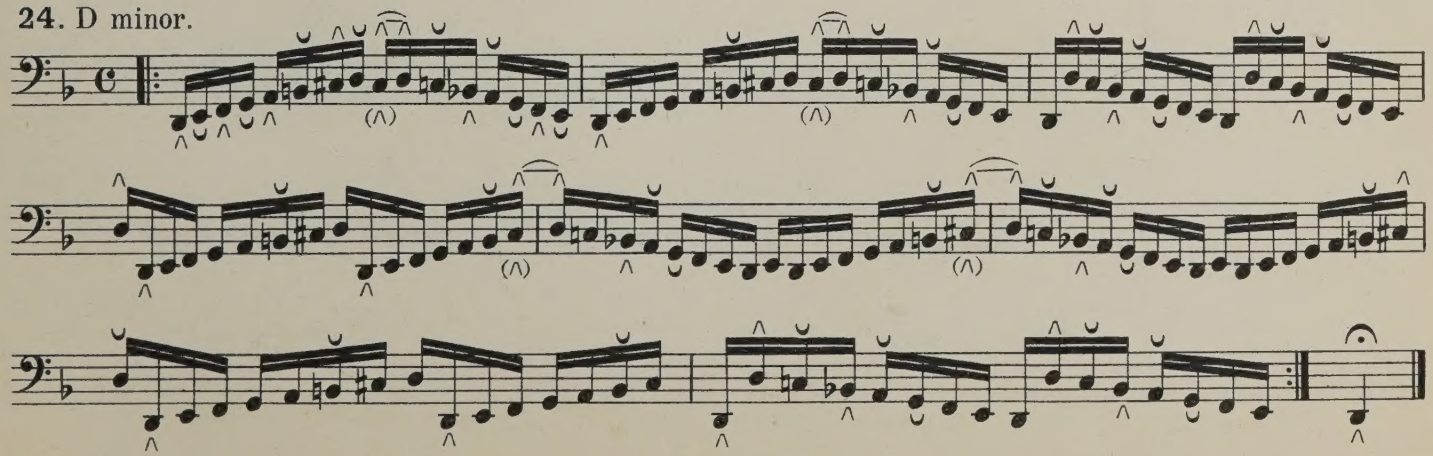
22. C minor.



23. G minor.

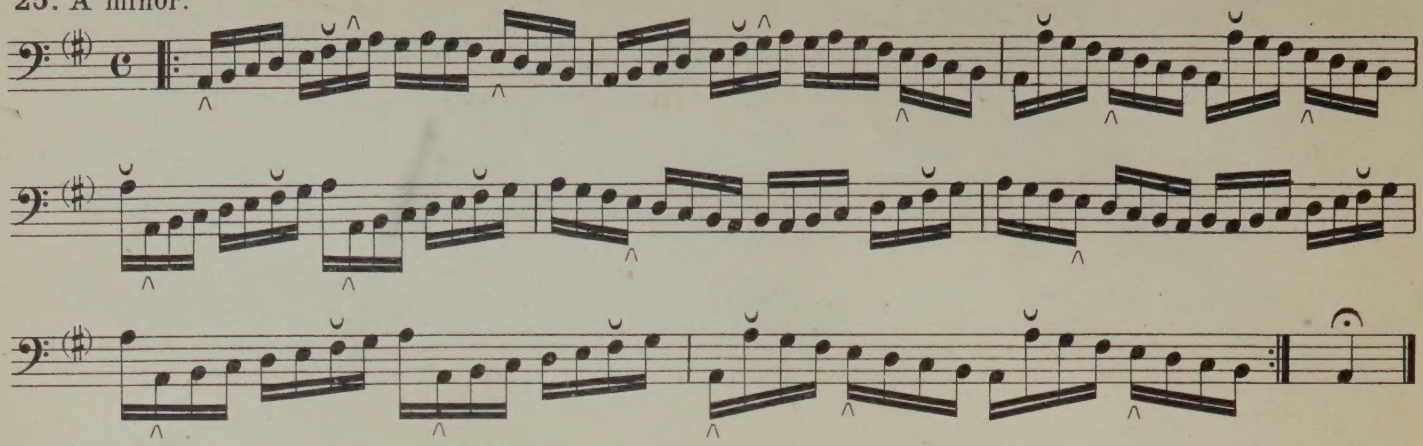


24. D minor.

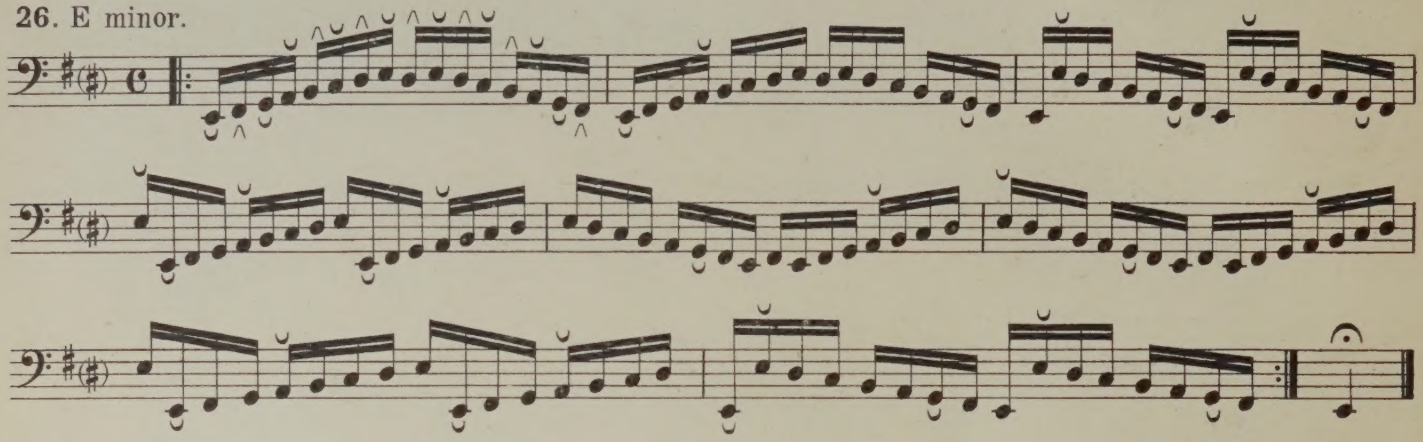


C. Harmonic Minor Scales.*

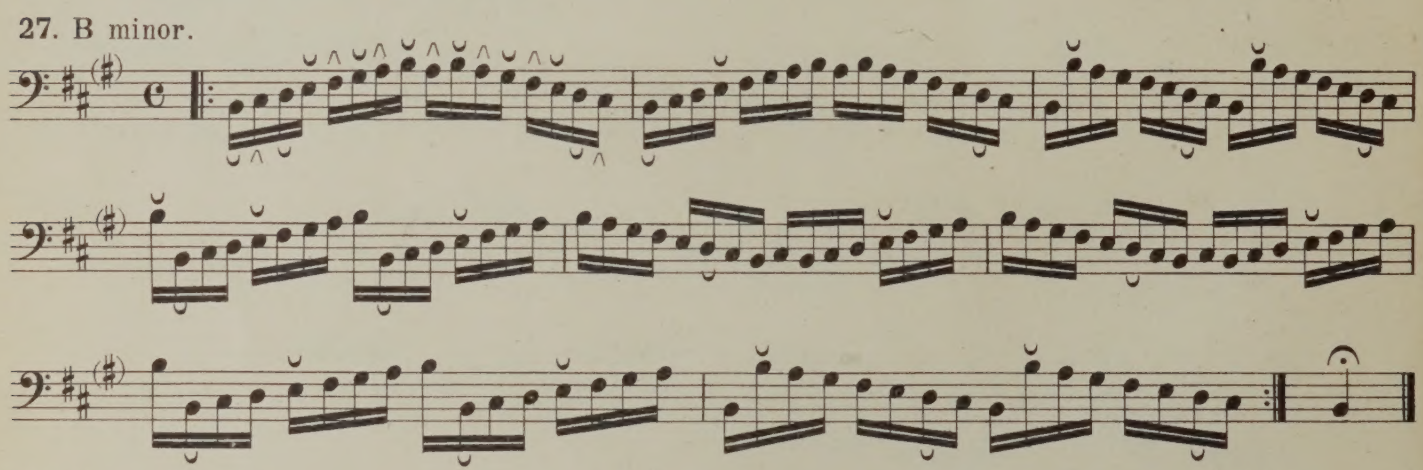
25. A minor.



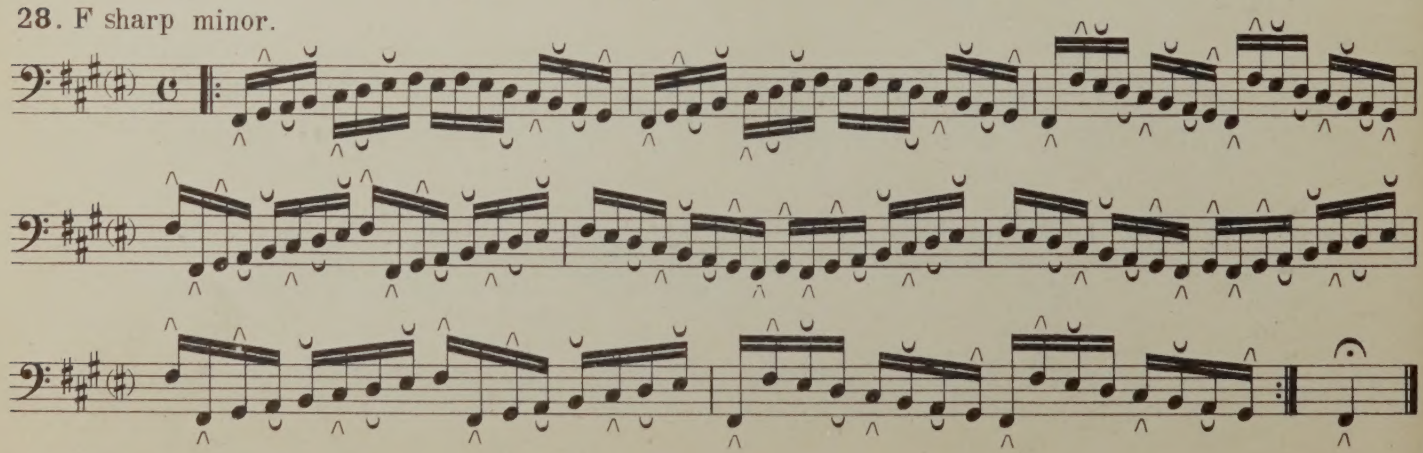
26. E minor.



27. B minor.

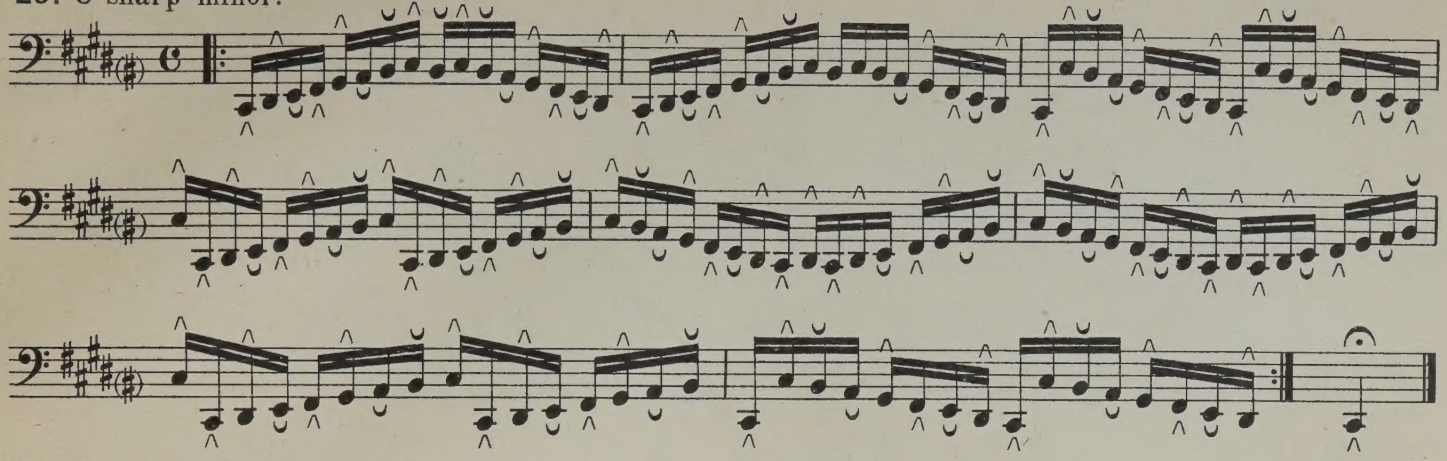


28. F sharp minor.

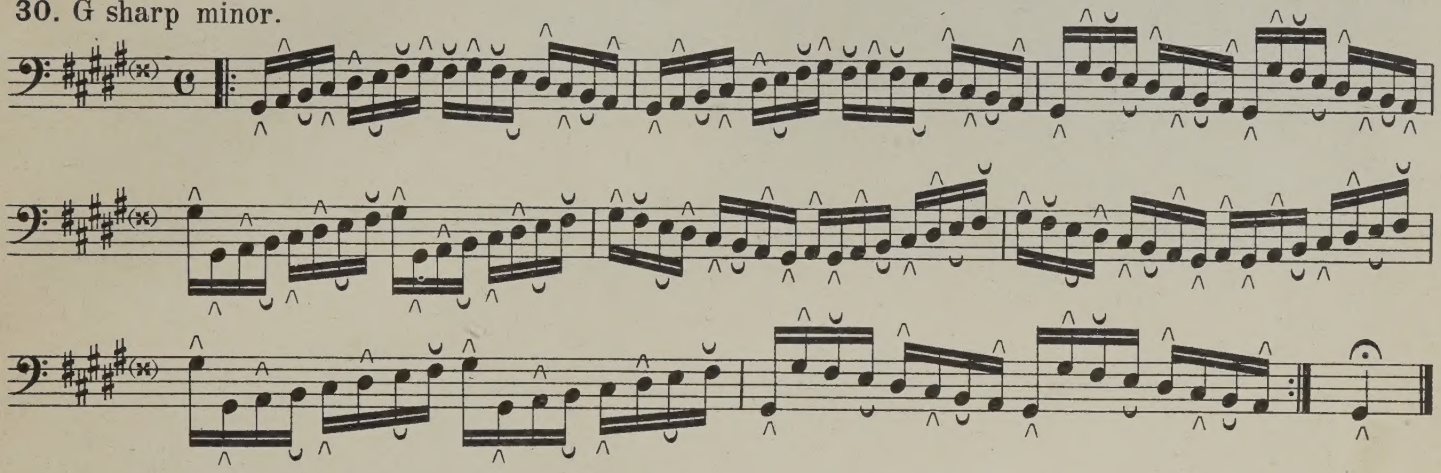


* The accidental for the raised seventh is added after the signature, in brackets (♯) or (♮).

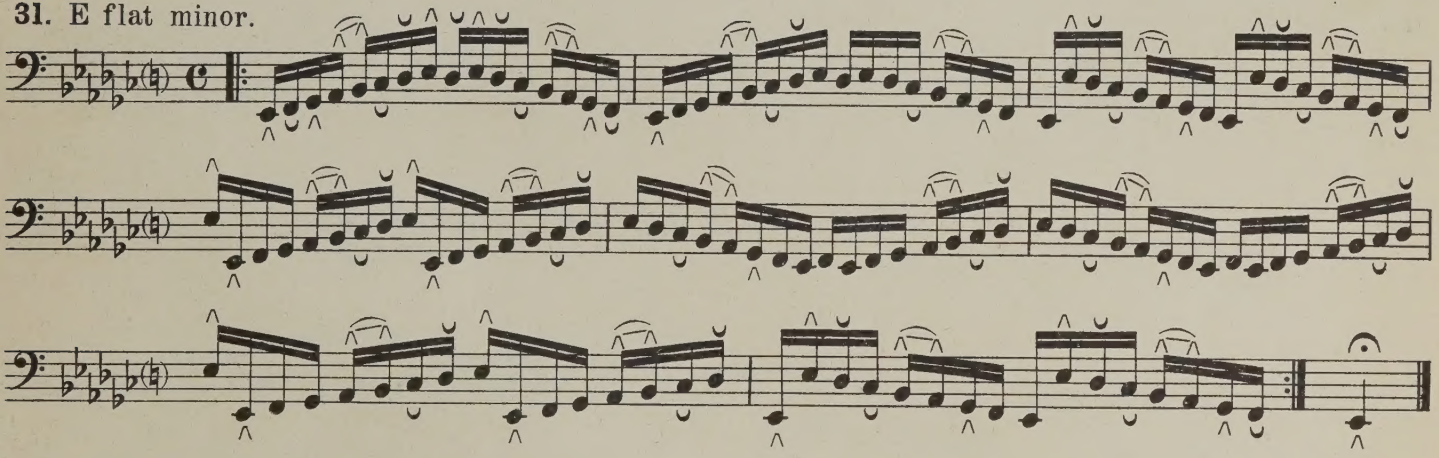
29. C sharp minor.



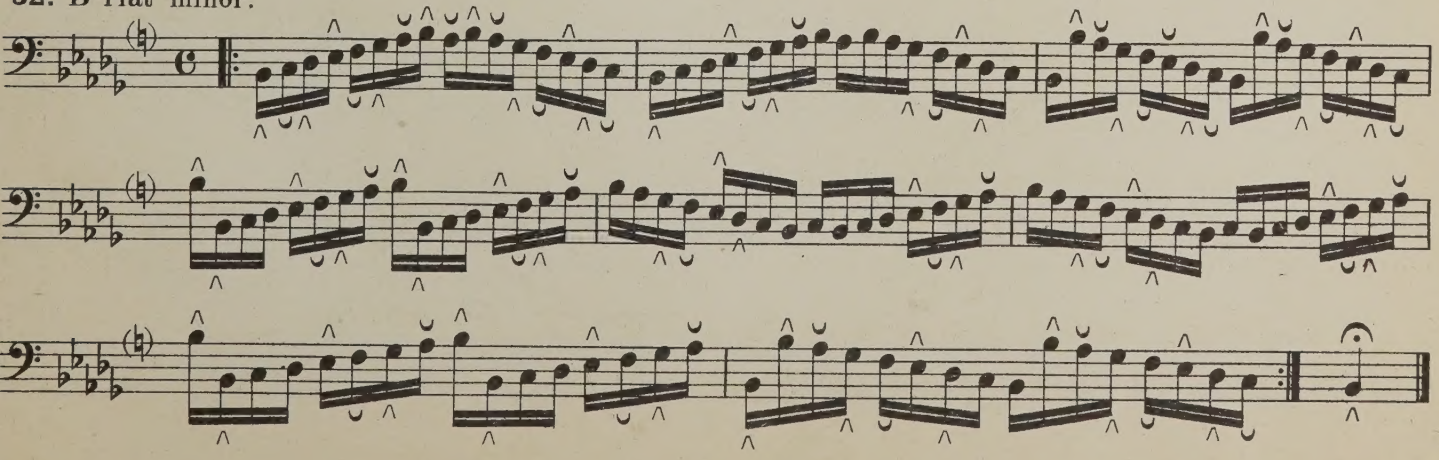
30. G sharp minor.



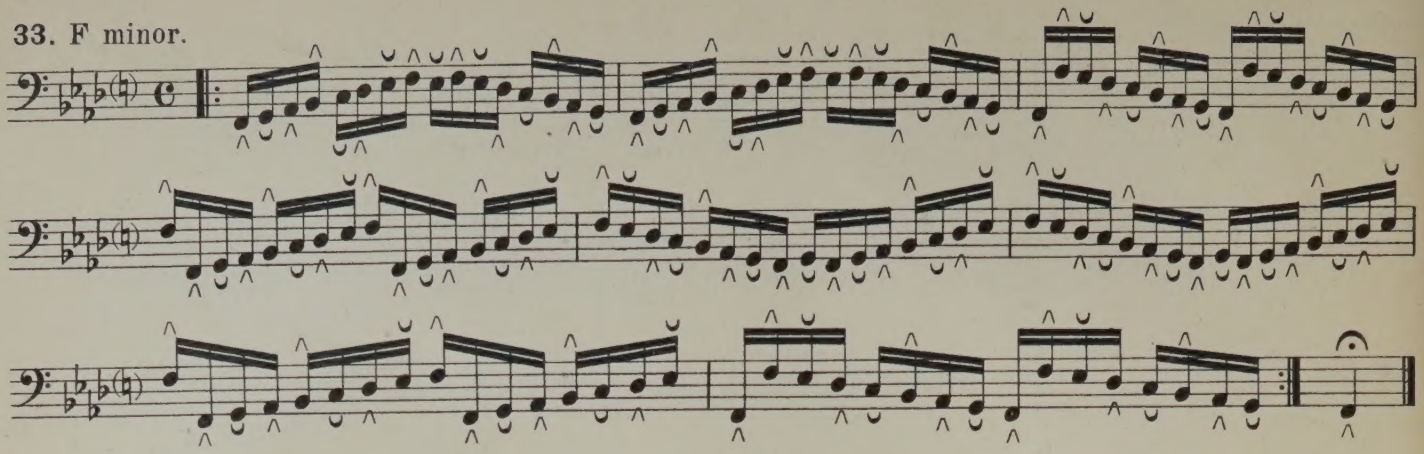
31. E flat minor.



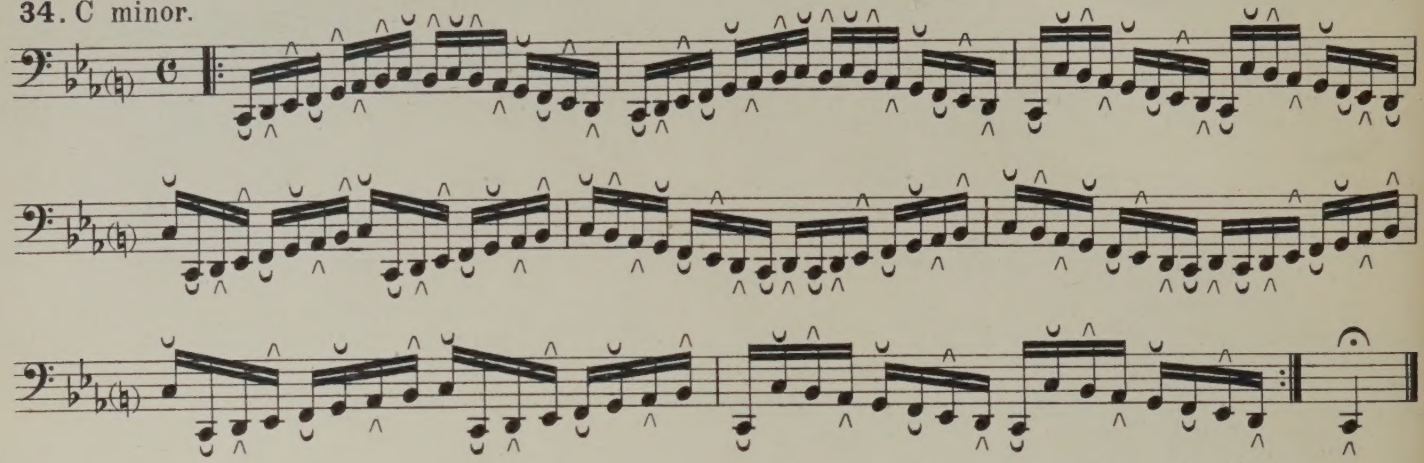
32. B flat minor.



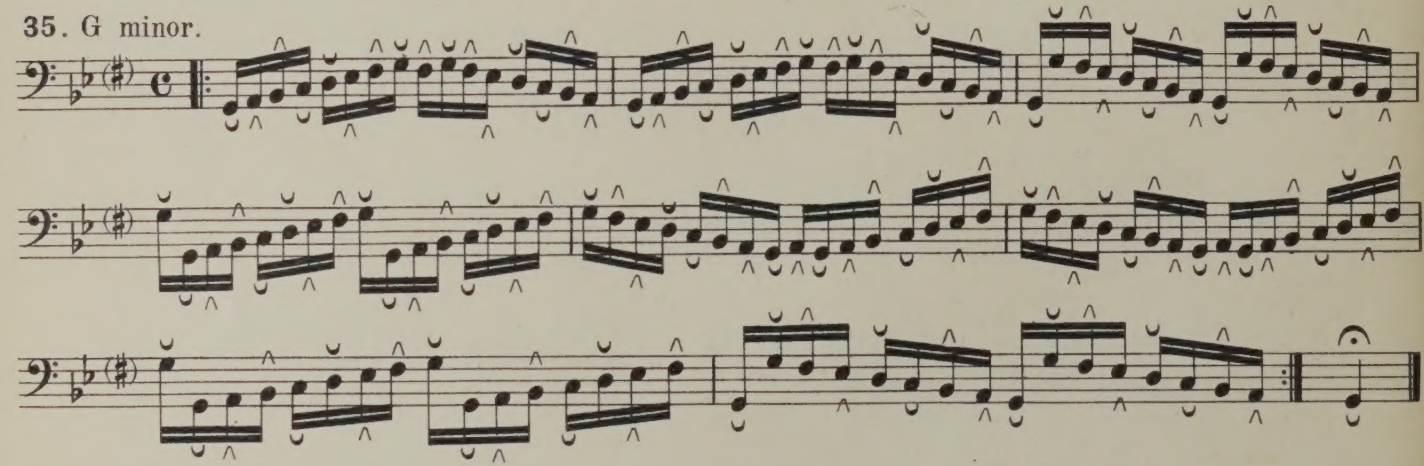
33. F minor.



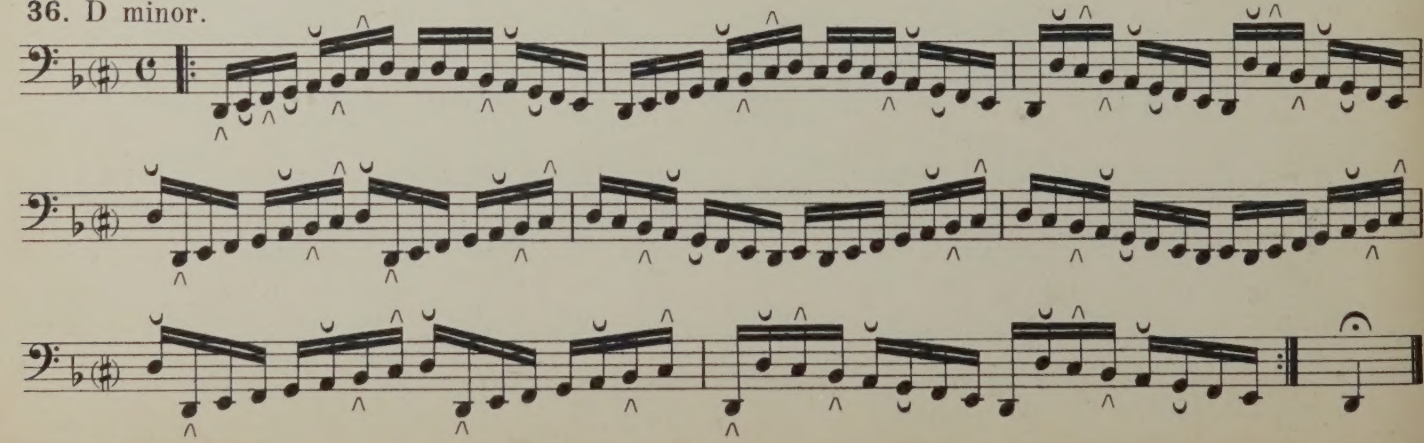
34. C minor.



35. G minor.



36. D minor.



FIFTY-SECOND THOUSAND.

NOVELLO, EWER AND CO.'S MUSIC PRIMERS.

EDITED BY DR. STAINER.

THE ORGAN

BY

JOHN STAINER

M.A., MUS. DOC., OXON.

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PREFACE.

THERE are two ways in which time may be devoted to the practice of a musical instrument. The first and most common is, to avoid the difficulties which present themselves, and to be content with mastering just so much of the art of playing as will afford a little amusement; the other is, to face at once the special difficulties of the instrument and persevere until they are surmounted. By the former, a player cannot possibly rise above a very mediocre standard, and his performance will never receive higher praise than that of being called tolerable; but by the latter, the highest excellence will be within reach, and the student will only be limited in its attainment by the amount of natural talents with which he may be endowed.

Perhaps no instrument offers such a temptation to triflers as the Organ, for the obvious reason that an immense variety of tone can be produced on it by merely mechanical means. Hence it is of the utmost importance that the student should take his first steps in the right direction. The Author has endeavoured to place the true principles of organ-playing before the beginner, and he hopes he has done so in a manner not uninteresting or discouraging.

He takes this opportunity of acknowledging his obligations to the eminent organ-builder, Mr. Henry Willis, for much valuable assistance.

Swell.

Hooe 8ft +
Cornopean 8ft
Piccolo 2ft
Waldflute 4ft +
Clarshorn 4ft
Voix Celeste 8ft.
Lieblich Gedact 8ft. } 1
Gamba 8ft }
Horn Diapason 8ft
Bourdon 16ft.

Pedals

Principal 8ft
Bourdon 16ft
Open diapason 16ft

Couplers.

Sw to Gt
Sw to Ped
Gt to Ped.

Cremona 8ft
Mixture 3 rks
Fifteenth 2ft
Harmonic Flute 4ft
Principal 4ft
Clarabella 8ft
Dulciana 8ft } 1
Keraulophon 8ft
Small Open 8ft
Large Open 8ft. } 2

Composition Pedals.

Swell
1 2 3

Great
1, 2, 3

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PART III.

STOPS AND THEIR MANAGEMENT.

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4. It was very soon found that *two* such instruments could easily be played by one person. This seems to have been known to almost all ancient nations. The figure below is from an Egyptian monument

Fig. 4.

The old-fashioned "double flageolet" is a real ancient "double flute," although the tubes are, for convenience sake, brought closer together than was the case in the older instruments. The pretty effect of the two-part harmony of the "double flute" urged men on towards the construction of an organ.

FLUTES ON A BOX OF WIND.

5. The next step in organ-building was to place several flutes on end over a *box of wind*, supplied not by human lungs, but by *bellows*. This is well illustrated by a figure copied from Kircher's "Musurgia."

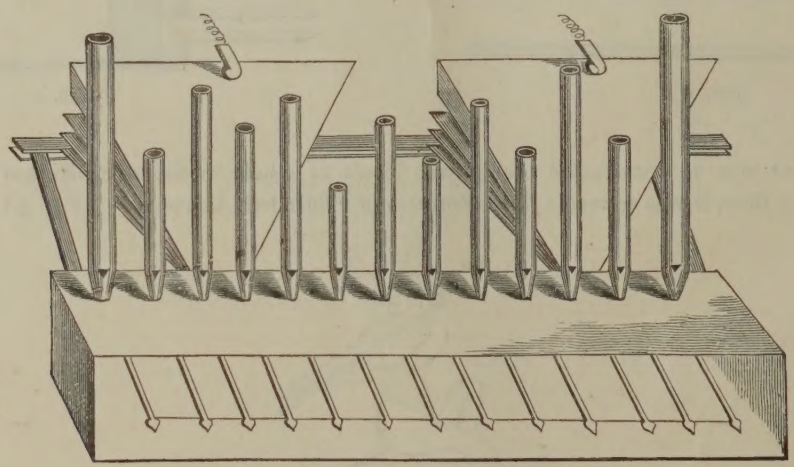

Fig. 5.

The pipes in the above instrument (Fig. 5) were made to speak or be silent at the will of the player, by pulling backwards or forwards pieces of wood, the ends of which either closed up the foot of a pipe or allowed the wind to enter it.

6. As the number of pipes increased, the number of blowers necessarily became larger. The following illustration from a Saxon Psalter exhibits this :—

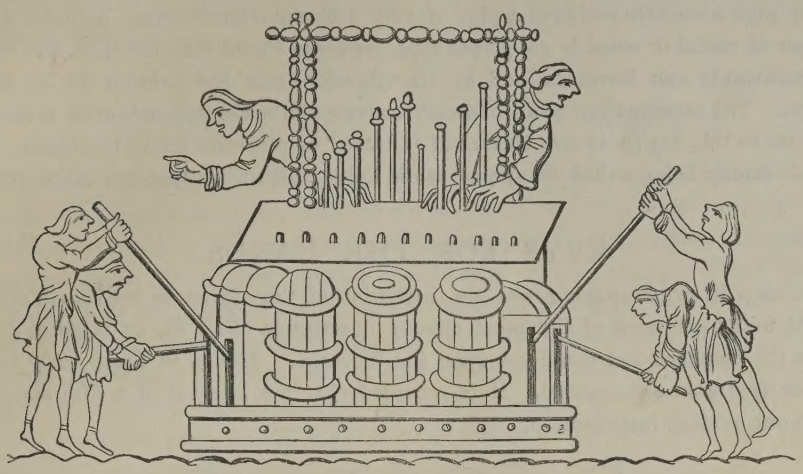

Fig. 6.

7. Bellows in those times were of very primitive form, in fact not in any way superior to a common blacksmith's bellows as used to this day in the forge.

Men soon discovered that the weight of the body might with advantage relieve the muscles of the arm of the laborious duty of constant pumping. They constructed bellows of such form that men could stand on them. The following was found on the Theodosian Obelisk at Constantinople :—

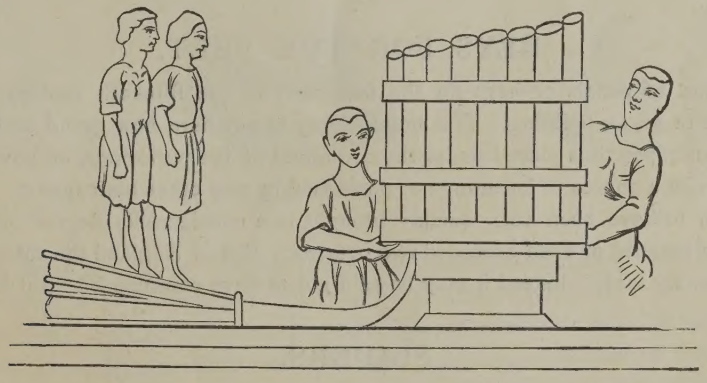

Fig. 7.

Hence, the blower was often called the "bellows-treader" (*Balgentreter*). This system of blowing has lasted up to the present time, and those who have any curiosity on this subject will still find in many continental churches, in some dark corner, a man busily engaged in mounting on first one and then another of several sets of feeders, and forcing the air into the bellows by his weight, as if he were undergoing punishment at a musical tread-mill.

REED AND FLUTE PIPES.

8. The flutes hitherto spoken of have been those in which the tone is produced by forcing air against a sharp edge of wood or metal called the "lip," and by this means setting the column of air inside into vibration. But the word flute or pipe anciently included a pipe of very different construction, namely, a *reed-pipe*—that is, a pipe in which a tongue of metal or wood is so placed that, as air is blown into the tube, the tongue, partly barring its passage, beats backwards and forwards, and by its vibration sets the column of air inside the tube into synchronous vibration. The examination of an oboe or bassoon will make the action of a reed quite clear. Thus it has come to pass that to this day these two classes of "flutes" or pipes are found in organs; those corresponding to the common whistle family being called *flue*-pipes, while those of the oboe type are called *reed*-pipes.

KEYS FOR THE HANDS.

9. The next step in organ-making was the invention of the *clavier* or *key-board*, about the close of the eleventh century. At first keys were of the most clumsy description (Fig. 8), so large and broad that nothing short of a blow from the clenched fist could act upon the leverage. Hence in these early times the player was called an organ-beater (*pulsator organorum*). It is recorded that the interval of a fifth occupied about the same space as an octave in our modern instruments.

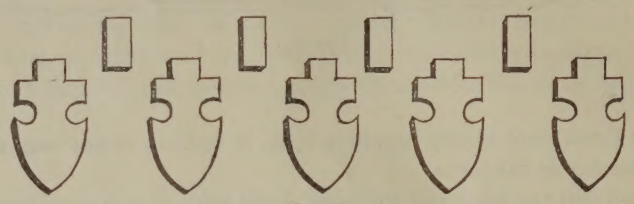

FIG. 8.

10. Then little by little the keys were improved in shape until they became much like our modern keys, the only difference between them being that the old sets were much shorter (from back to front), and the sharp keys were *white* and the natural keys were *black*, the reverse of our modern colours.

KEYS FOR THE FEET.

11. The invention of pedals or keys for the feet, early in the fifteenth century, was probably the most important step ever made in organ-building. It is unnecessary to say here how grand and thrilling is the effect of the tone of those enormous pipes thus placed under the command of the performer, or how the independent use of the pedals gives the organist a source of harmony not possessed by any other instrument.

Pedal-keys seem to have been very quickly brought to a considerable degree of perfection in Germany, where their compass soon reached or even exceeded two octaves. But in England the introduction of pedal-boards of full compass was extremely tardy; indeed it may be said not to have commenced until fifty years ago.

SLIDERS.

12. When only one row of pipes was placed over the box of wind the mechanism of an organ was simple enough, because each key pulled down a sort of pallet or piece of wood covered with leather placed under the foot of each pipe. As long as the key was held *down* the air rushed through the hole into the pipe and made it speak, but as soon as the key was allowed to return to its position the pallet returned by means of a spring to *its* place below the pipe and shut off the supply of wind.

But it was discovered that if a thin slip of wood be placed (running from *right to left*) under the row of pipes, having perforations corresponding to the holes in which the pipes stand, the *whole row* of pipes could be made silent by shifting this sliding piece of wood either to the right or left so far that the perforations no longer corresponded

with the holes in which the pipes stood. Even when the keys are pressed down no sound will be produced until this sliding-slip, or slider, is moved into such a position that its perforations are exactly under the feet of the pipes.

13. These sliders are now acted upon by levers called *stops*, and it is by their means that several rows of pipes of different qualities of tone, and also of pitch, can be placed over the same box of wind and yet be selected at will by the performer.

TWO OR MORE ROWS OF KEYS.

14. The admirable capabilities of the organ for supporting vocal music, and the solemn dignity of its character, have always led to its association with divine worship. But the broad and strong qualities of tone found useful for sustaining the voices of a large congregation were not found delicate enough for the accompaniment of a highly trained choir either when singing individually or in a body. Hence the construction of an independent organ of soft and delicate tone called the *Choir* Organ, the keys of which were placed either immediately above or below the louder organ, to which last was given the name Great Organ. The keys of the Choir Organ are more often below those of the Great Organ than above, and the pipes of the former are often, especially in cathedrals, placed on brackets projecting over the screen behind the player's back. In such cases the mechanism connecting the keys with the pallets and pipes had to pass below the organist's feet, under the pedal keys, and it was called in German a *Rückpositiv*.

Two sorts of small organs had been in public and private use, namely, the *Portative* or "portable organ," so called because it could be carried about in processions, and the *Positif* or "organ in position," so named in contradistinction, under the impression that it was *not* portable.

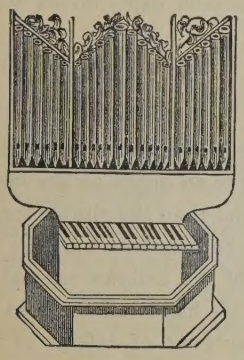

FIG. 9.—Positif Organ.

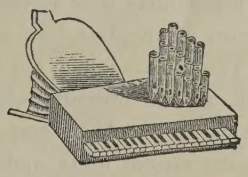

FIG. 10.—Portative Organ.

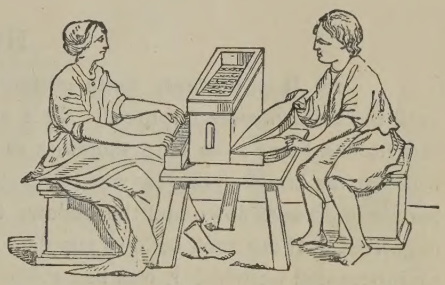

FIG. 11.—Portative Organ.

But, as a matter of fact, these *positifs* or "organs in position" were sufficiently portable to be moved from place to place with comparative ease, although they were really larger than the *portatives*.

Organ-builders found in these soft sweet-toned *positifs* an excellent model for the organ required for choir accompaniment. Hence Choir Organs were not only built with the same sort of tone and of much the same dimensions as *positifs*, but were actually called *positifs*, a name which they bear to this day in France and Germany.

15. The "Echo Organ" was a small organ, often of limited compass, the pipes of which were shut up in a box and placed at a distance from the rest of the instrument. Echo Organs are sometimes made now. In most instruments their place is taken by the "Swell." The gradual alteration of an "Echo" into a "Swell" organ was, like many other vast improvements in organ-building, due to English workers. Abraham Jordan, in the year 1712, made the front of an echo-organ box to move up and down in grooves at the side like a window-sash. The mechanism for raising the front board or shutter was of a very unwieldy character, and the pedal which set it in motion offered great resistance to the foot. It also happened frequently, that on permitting the shutter to return to its place (by raising the pedal), this heavy panel of wood ran down with an unpleasantly loud bang. This old form

was called a "nag's-head" swell. But this method of obtaining a "swelling organ," as it was called, was in time superseded by a set of overlapping shutters known as the "Venetian" swell, so called because of its similarity to a common outdoor blind.

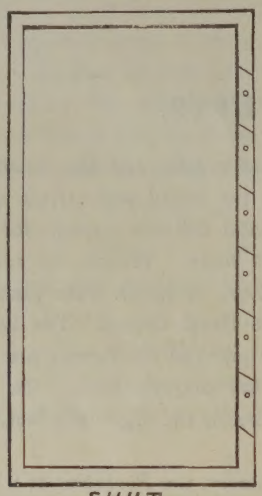

FIG. 12.

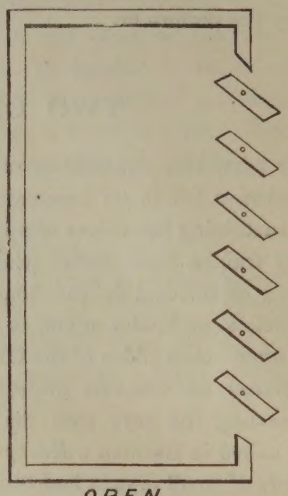

FIG. 13.

It is quite impossible to arrange an account of all the improvements in organ-building in chronological order. Progress and inventions overlapped each other, and very often the results of successful experiments were not generally known and utilised till long after their first discovery.

HORIZONTAL BELLOWS.

16. It is, however, quite certain that no great advance in the construction of the instrument was possible until the bellows were improved. This portion of the mechanism is of as vital importance to an organ as are lungs to a human being; as long therefore as no better means of supplying an organ with wind than the simple forge-bellows was known, progress was completely barred. The faults of such old bellows must be known to all. As the handle is pressed down and the bellows is made to fill, all the pressure which the top of the bellows exerted is negatived. If *one* such bellows supplied an organ, the player would be compelled to take his hands off the keys on each occasion on which it was being filled. If the reader cannot quite understand this account of defects of the old forge or "diagonal" bellows, he can easily make an experiment which will fully explain what has been said; let him take a common kitchen-fire bellows and insert the mouthpiece of a penny whistle into its orifice, and bind both round with leather so that the air passing from the bellows must enter the whistle, and then let him ask a friend to blow while he plays tunes. The defects of diagonal bellows will no longer be doubted.

Nor were these faults remedied by having a large number of such bellows and then supplying the organ only from those which were full; because, when a bellows of this kind is full, the weight of the top and sides is spread over the whole atmospheric contents, but as the air becomes exhausted this weight remains equal while the contents grow less; the *pressure* of the outgoing air is therefore increased.

Two improvements made towards the close of the last century, by Green, remedied all these shortcomings. The old diagonal bellows was made into a feeder, and had another bellows placed over it, so that the two together formed a *feeder* and sort of *reservoir*. A peep at the bellows of a modern organ will show that the pressure of wind, for obvious reasons, does not vary with the movement of the feeder. The modern bellows are termed *horizontal* to distinguish them from their forerunners; and notwithstanding the fact that no "diagonal" bellows have for a considerable period been made in this country, organ-builders still promise that they will supply their customers with "horizontal" bellows.

One other improvement only was needed to make bellows perfect. It was necessary to remedy the defect before alluded to, namely, the inequality of the pressure as the top fell. This was ingeniously done by making one fold of the bellows turn *outwards* while the other turned *inwards*. This arrangement of the folds can be clearly seen in the next illustration.

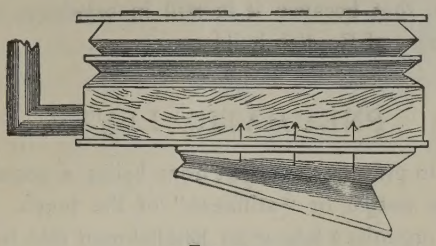

FIG. 14.

17. The *counter-balances* are pieces of iron attached to the upper, middle, and bottom boards of bellows for the purpose of making *a* and *b*, Fig. 15, open equally. Their use is a marked improvement in organ-construction

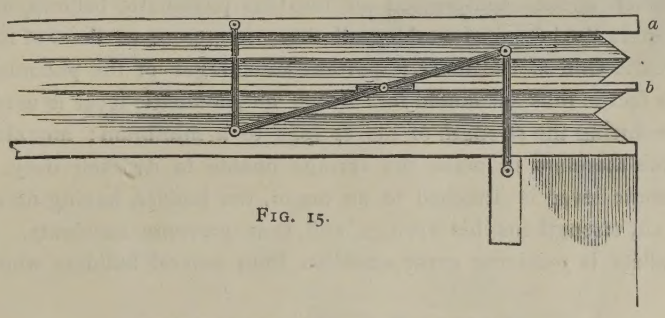

FIG. 15.

CONCUSSION BELLOWS.

18. In old organs it was found that the simultaneous sounding of several of the large pipes on the manuals caused a "jumpy" and unsteady effect—a sure sign that the equality of pressure was disturbed, first by the sudden demand on the resources of the wind-chest, next by the rush of air to take the place of that already used. The accompanying ingenious invention of Bishop, the organ-builder, about fifty years ago, entirely removed this. He placed a small single bellows (*a b*) against the wind-trunk near the sound-board, the outer side of which was balanced by a spring (*c*). When a sudden demand is made upon the wind and the pressure is consequently reduced, this spring (*c*) by proportionately forcing in the side of the bellows (*d*) counteracts the defect. These little bellows are called "concussion-bellows."

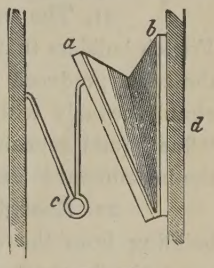

FIG. 16.

COMPOSITION PEDALS AND COMBINATION PISTONS.

19. The player had still to contend with the serious inconvenience of being compelled to make any alterations in the arrangement of the stops by drawing them in or out *with his hands*. A great boon was therefore conferred upon organists by the introduction of small iron pedals placed within easy reach of the feet, which by a system of leverage could draw out certain groups of stops. This method of changing stops has been vastly improved upon by Mr. Henry Willis, who, after many years of patient study, has perfected a system of "combination pistons." They are small round ivory or brass buttons placed on the flat strips of wood between the manuals. When pressed with the thumb or any available finger of the performer, these pistons act upon little bellows of compressed air which, as they expand, push groups of stops in or out by appropriate leverage. The convenience of this clever mechanical contrivance cannot be overrated.

The system of arranging sets of stops on different sound-boards and giving the organist little pedals, by the forcing down of which the air is cut off from the different sets of stops, is known as the "ventil system." Those who are best competent to judge of its worth are convinced that it is inferior both to "composition pedals" and "combination pistons," and it is to be regretted that in certain quarters an attempt is being made to reintroduce it under the false notion that because it is still in existence in some parts of the Continent it is therefore superior to the latest inventions of English builders.

PNEUMATIC LEVER.

20. Perhaps nothing tended to prevent the organ from being a popular or generally attractive instrument to students so much as the extreme weight or "stiffness" of the touch. For the remarkable invention which removed this disagreeable part of an organist's labour an Englishman also has to be credited. Mr. Barker, about the year 1832, made a small bellows for each manual key, so arranged and constructed that when a key was pressed down the compressed air raised the top of the bellows. To the top of this bellows was attached the weight of the whole action to the pallet. When the manual key was allowed to rise, the little bellows was emptied through a waste valve and fell into its position of rest. The fingers of organists have, therefore, in these days only to move the small pallet or valve which admits compressed air into the pneumatic bellows, and thus are able to throw on to these active little supporters the labour of working all those numerous portions of mechanism which reach up to the pallet in the wind-chest. One of the most important advantages of the pneumatic lever is that ciphering is much less frequent. This fact is thus accounted for: when no pneumatic lever is used the organ-builder strives to render his touch light by reducing the strength of his springs to a minimum; any change in the weather or other disturbing influence is liable therefore to make the springs unable to do their duty, and a cipher is the result. Whereas, when the pneumatic lever is attached to an organ, the builder, having no scruples as to the work he is giving to his compressed air, strengthens his springs and thus prevents accidents. The electric communication between manuals and pallets is receiving great attention from several builders who are striving to bring it to perfection.

IMPROVEMENTS IN ORGAN-PIPES.

21. The variety of tone produced by modern organ-builders is extraordinary. The discovery by the French builders that organ-pipes, made twice their proper length and perforated with a small hole in the middle of the tube, produced a fine rich tone, has led to the universal adoption of "harmonic" stops as they are called; simultaneously with this a high pressure of wind has been applied to many important stops, both "reed" and "flue" (and especially to "harmonic" stops), thereby adding largely not only to the varieties of tone of which the instrument is capable, but also to the grandeur and sublimity of its full power.

22. Enough has been said to give the reader a fair notion of the progressive improvements in organ-building from the earliest time to the present day. There are those however who claim great antiquity not only for a simply constructed instrument but also for organs of a complicated structure. Thus the *magrepha*, though not mentioned in the Bible, is described in the Talmud as an organ with ten keys and ten pipes to each key, of very powerful tone, used in the Temple of Jerusalem.* Other authors assert that organs with four, six, or eight stops were in use before the Christian era.† But the word *organ* is so very generally applicable in its meaning of *an appliance* or *mechanical contrivance* that it cannot be a matter for surprise that it has, from time to time, been given to musical instruments differing from each other not only in capabilities but in structure. The word *organ* as used in the Bible for a translation of *ugab* or *huggab* must not be thought to imply any complicated or large instrument.‡

The expression a "pair of organs" found in old writers merely signifies a complete set of pipes, just as we still say "a pair of stairs," &c.

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* See Engel's "Music of the Most Ancient Nations." † See Chappell's "History of Music."

‡ See articles in Cassell's "Bible Educator."

PART II.

SHORT EXPLANATION OF THE CONSTRUCTION OF AN ORGAN.

23. Much as to the nature of the mechanical structure of an organ must have been gathered from the historical sketch just given, but the following concise account will perhaps place the whole more clearly before the reader.

The most important fact to be first grasped is that an organ with independent pedals and two or more manuals is simply *several* organs of almost identical structure brought together so as to be conveniently under the control of one performer.

If then the mechanism from the key to the pipes is once explained, the same explanation will apply equally to each row of keys and to the separate pedal organ.

FROM KEY TO PALLET.

24. Let us start from the manual-keys, looking at Fig. 17 at each step.

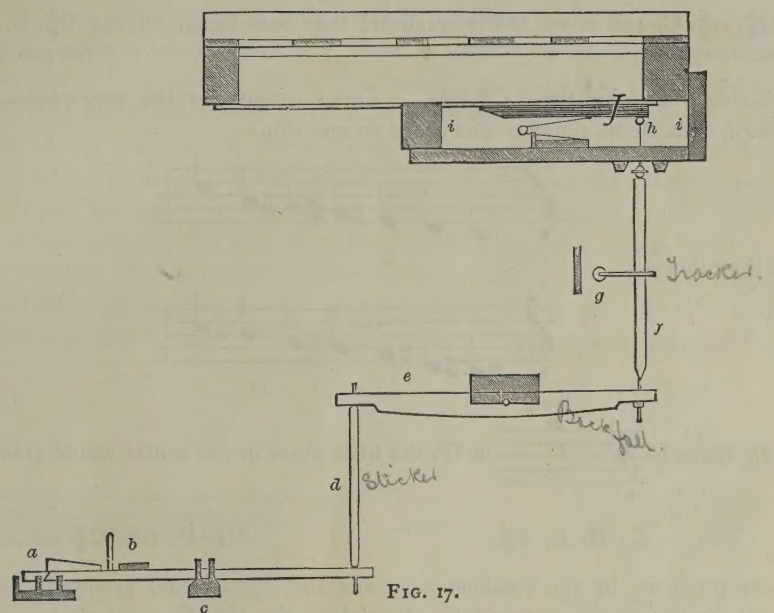


FIG. 17.

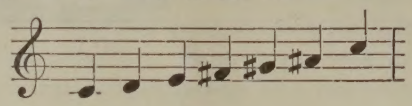
A key is a lever, the front portion of which is exposed to view (*a*). Just behind the ornamental strip of wood forming a band between each manual is placed a weighted piece of wood lying on the whole length of keys from side to side, called the *thumping board* (*b*). Its duty is to keep the keys in position and resist any tendency they may have to rise unduly when released from pressure of the finger. Under the keys a series of pins are arranged on a piece of wood forming the *pin-rail* (*c*). These pins fit easily into holes in the keys and prevent them from oscillating when moving up and down. On the end of the key, and kept in position by a little pin running into a hole in the key, is the *sticker* (*d*). The upper end of the sticker has also a little pin which passes into the end of a horizontally placed lever called a *backfall* (*e*). At the other end of the backfall is a hole through which passes the lower end of a *tracker* (*f*). Trackers may be of various lengths according to the size and position of the instrument. The little wire passing from the end of the tracker into the hole in the backfall is made like a screw, or *tapped*, as it is termed; so, where it appears below the backfall, a little leather *button* can be screwed on to it. Two purposes are answered by these buttons; they prevent the tracker from jumping out of position, and they enable the builder to *regulate* the length of the tracker by twisting the button to the right or left. If trackers are very long indeed, they are made to pass through one or more perforated pieces of wood, each tracker having one hole to pass through. These contrivances are called *registers*, and their object is to prevent the trackers from knocking against each other and making a rattling noise (*g*).

It will appear from the diagram that the upper end of the tracker is fastened to a *pull-down* (*h*) or piece of wire, one end of which passes out of a small hole in the wind-chest (*ii*), while the other is fastened to the bottom of the pallet (*J*). This has been purposely done to give the younger reader a general idea that the key pushes sticker, sticker raises front of backfall and at the same time forces down the further end of backfall, backfall pulls tracker, tracker pulls pull-down, pull-down pulls down (as its name implies) pallet, pallet allows wind to rush up to pipe.

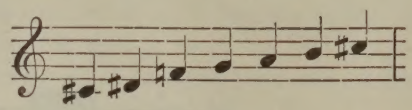
25. But as a matter of fact the pipes are not arranged all of a row, beginning with the smallest on the right-hand side, ending with the largest at the left-hand side. If pipes were so arranged in large organs, not only would they present a very ugly appearance, but all the weight would rest on one side; and also, as large pipes take much more room of course than little ones, the left-hand side of an organ would have to be of much greater depth. And again, if this arrangement of pipes were followed, the resources of the box of air, or wind-chest, would be taxed to the utmost on the left side where the big pipes were standing, while the other end would only have to supply tiny pipes. All these considerations have led organ-builders to place pipes alternately on either side, beginning with the largest. Thus—

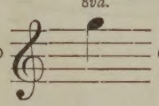
C, D, E, F♯, G♯, A♯, C, and so on, to the smallest; then back again, ending C♯, B, A, G, F, D♯, C♯.
(Largest pipes on left-hand side.) (Largest pipes on right-hand side.)

One is called the "C side," the other the "C♯ side." This accounts for the very unpleasant musical scale heard when a tuner is at work, because he tunes in this order on one side—



and in this order on the other—



If the organ had a compass to 

or G³, the little pipes in the centre would stand thus—

. . . . . C, D, E, F♯, G, F, D♯, C♯ . . . . .

The note G would be produced by the smallest pipe, and the pipes would gradually increase in size up to the largest—on the left side to the C of lowest pitch, on the right to the C♯ of lowest pitch.

26. It is evident then that as the pipes do not stand in the same order as the keys, that is, by successive semitones, the action of the trackers will have to move sideways also in order to get under their respective pull-downs. This sideways movement is managed by what is called a *roller-board*. A peep at a roller-board in an organ will show its use and construction far better than any amount of verbal explanation. But it will be easily understood that if a series of little rollers (of wood or thin iron) be placed horizontally on an upright board, having at one end a jutting arm fastened to the tracker, and at the other end a similar jutting arm connected with the pull-down, when the tracker pulls one end of the roller the other end of the roller will move the "pull-down," and the pallet under the foot of the pipe will thus be opened.

FROM BELLOWS TO PIPES.

27. Having shown how the movement of a key acts upon various levers until the pallet is pulled open, our next step will be to trace the progress of the wind from the time it enters the bellows until it reaches the pipe. If the reader can understand these two processes, which always go on simultaneously, namely, leverage from a key and at the same time progress of wind from the bellows, he will have grasped the true principles of the construction of an organ.

The attention of the reader is now called to Fig. 18:—

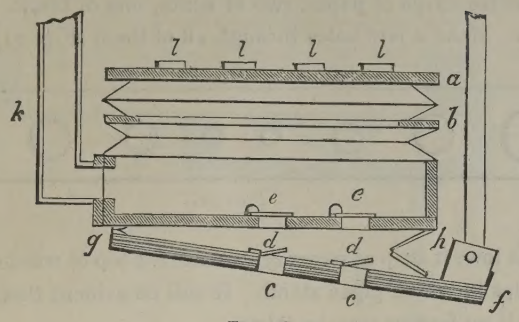


FIG. 18.

The bellows-handle, or whatever lever is employed in its place, moves the *feeder* (*f g*). Feeders are the lowest portion of the bellows, and are perforated with large holes (*c c*), closed inside by light coverings of leather hinged at one end (*d d*). When a feeder is moved down, the air from outside raises these light valves (*d d*) and fills it; but as the return movement of the handle raises the feeder, the air cannot get outside again owing to the openings being covered up by which it entered; it therefore raises the valves in the reservoir (*e e*) above and enters in there. But the entry to the reservoir is closed by valves (*e e*) of similar construction to those which are placed in the bottom of the feeder; as soon therefore as the air has got into the reservoir and the feeder begins to go down for the second time, the valves in the reservoir fall over the opening and the wind is secured *inside the reservoir*. On the top of the reservoir are weights (*l l l l*) carefully adjusted, which make the air try to get out through the *trunk* (*k*) at the side. These trunks are sometimes of metal, more usually of wood, and convey the air into the *wind-chest*. The trunk guiding the wind from the bellows will be seen at *k* in Fig. 18. The following (Fig. 19) shows the action of double feeders; while one (*a*) is feeding the reservoir the other (*b*) is being refilled:—

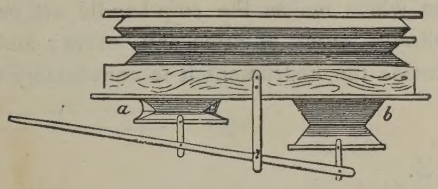


FIG. 19.

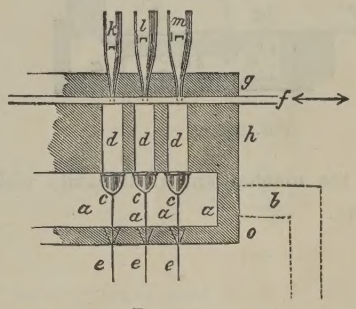


FIG. 20.

The junction of the wind-trunk to the wind-chest is shown by the dotted lines (*b*) in the next illustration (Fig. 20).

28. We have now traced the air into the wind-chest (*a a a a* in Fig. 20). It cannot go into the pipes at once because the *pallets* (*c c c*) stop the way.

When the action of the keys (just described on page 17) pulls down the pallets, the air makes a rush to get into the pipes through the *grooves* (*d d d*); and it will succeed in getting into the pipes if the *slider* (*f*) is open. The slider is a flat strip of thin wood which moves from left to right or *vice versâ*, lying between the top of the wind-chest and the sound-board (*g*) in which the pipes stand. The holes in the slider correspond exactly with the holes under the pipes. The slider is acted upon by the *stop*. When the stop is *in*, the slider is out of position and the air is arrested in its progress to the pipes by finding no orifice in the slider (*f*). But when the stop is *out*, the holes in the slider are under the holes leading to the pipes, and the air rushes into them and makes them speak. When, however, the key is allowed to return up to its position of rest, the pallet closes sharply and no more air can get to the pipes whether the stop is in or out.

29. As it is often found difficult to explain the action of the slider to young persons the following way of stating it may be of use. Take three strips of paper, two of white, one of black. Place the black strip between the two white, so that they coincide. Make a few holes through all of them (Fig. 21).

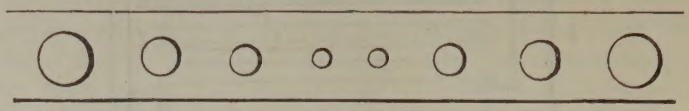


Fig. 21.

Place them on a table. Then the lowest strip of paper represents the top of wind-chest, the black strip the slider, the top strip the sound-board and holes in which pipes stand. It will be evident that air could run through the holes in all the strips and enter the pipes if no further step be taken.

But now take hold of the black paper and give it a little pull to the right. The following (Fig. 22) will be now the appearance on the table:—

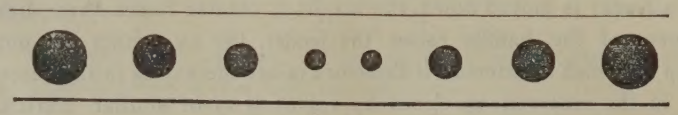


Fig. 22.

It is very evident that, although there is an opening in the white papers, no pipe could now speak, because the black paper stops the progress of the air. This is exactly the nature and function of the slider. The stop when *out* makes all the holes coincide, as in Fig. 21; the stop when in makes the slider intervene, as in Fig. 22.

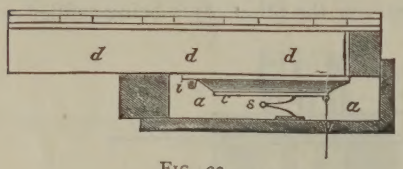


Fig. 23.

In Fig. 20 (at *c c c*) the pallet was only shown from the front; it will make its function clearer if we show it sideways as in Fig. 23. The pulling of the wire opens the pallet, which is hinged at *i*, the air rushes therefore from *a a* into *d d d*, the groove. On releasing the key, the spring (*s*) instantly closes the pallet.

The action which makes the stop-handle act on the slider is nothing more than a series of arms and levers; and as it is a portion of the mechanism most easily visible when looking inside the instrument it is unnecessary to say more about it here.

COUPLERS.

30. Couplers are of two kinds, manual couplers and pedal couplers; by the former, one of two rows of keys is so connected to another that when that one is being played the other also is acted upon at the same time; by the latter, when the feet are playing on the pedals the lower notes of a manual are simultaneously acted upon. The most simple couplers are those which act upon one of two successive rows, such for instance as "swell to great," which signifies that when this stop is drawn and the Great Organ is being played the Swell is simultaneously acted upon. The coupler formerly most commonly used can be thus explained. The backs of the keys are cut away—that of the upper set at the under side, that of the lower at the upper side. A piece of wood is pierced with holes and made into a frame for the little flatheaded stickers shown at *a* and *b*. When the coupler is *not* drawn out the stickers are all at *b*, where they cannot produce any effect; but when the coupler is drawn out the rod and all the stickers are thrown into position at *a*, and therefore upon pressing the front of the lower key the end rises and pushes up the back of the upper key. But *backfall* couplers, that is to say couplers formed by the use of levers (such as that represented by *e* in Fig. 17, p. 17), are now most frequently met with.

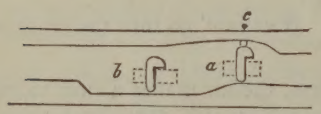


Fig. 24.

The following diagram (Fig. 25) shows both manual and pedal couplers on an organ of two manuals. Backfall couplers are placed out of gear (when the stop is *in*) by a displacement of the backfall frame in such a manner that the wire of the sticker moves up and down without acting on the backfall. Pedal couplers, owing to the extent of the pedal-board being greater than that portion of the manuals on which they act, are constructed by means of a roller-board, or a backfall called a *splay* backfall, because the arms are not parallel to each other.

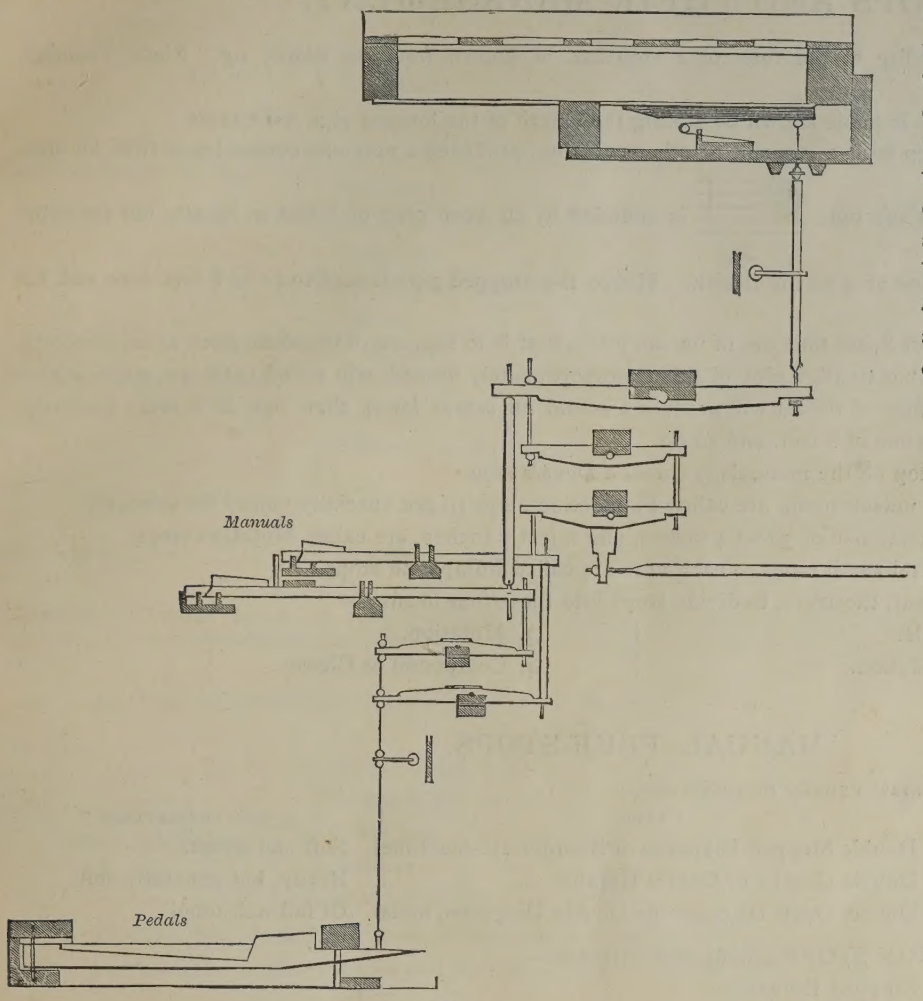


Fig. 25.

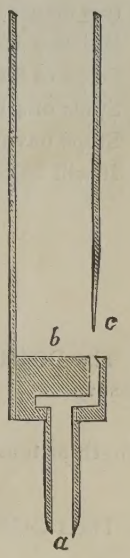


Fig. 26.

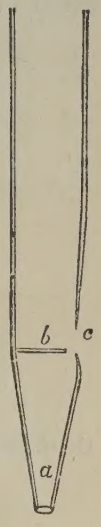


Fig. 27.

31. When couplers are drawn the touch of a large organ would be very heavy were it not for the pneumatic lever, for an explanation of which the reader is referred either to Hopkins' excellent work on the organ, or the article " Organ " in Stainer and Barrett's " Dictionary of Musical Terms."

32. The construction of all the flue-pipes in an organ can be gathered from an examination of Figs. 26 and 27; for, although they differ in detail in a vast number of ways, the principle remains the same. The air enters the foot (*a*) or lowest portion, is arrested by a piece of wood or metal (*b*) called respectively the *block* or *languid* (a corruption of the Latin *lingua*), is forced to escape in such a way as to impinge upon the lip (*c*), and thus sets the column of air contained in the pipe into vibration.

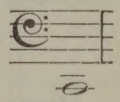
33. It is not an easy matter to explain the construction of a reed-pipe either by words or woodcuts. The student is recommended to ask an organ-tuner to take a reed-pipe to pieces and show how it is made. But to those who cannot thus see it with their own eyes, the easiest way to explain it, is to ask them to imagine an ordinary clarinet with the reed end placed into a foot or boot so constructed that the bottom of the foot could be placed on an organ sound-board and the upper part should fit tightly round the portion of the instrument just above the reed. On the admission of the air from the bellows, it would have to pass by the reed of the clarinet to escape; the reed would then by its elasticity beat against the orifice just behind it, and so be set into vibration.

PART III.

STOPS AND THEIR MANAGEMENT.

34. As a rule, the quality of the tone of a stop can be known from its name, *e.g.*, *Flute*, *Trumpet*, *Viol da Gamba*, &c.

35. The pitch of a stop is made known by stating the length of the longest pipe it contains.

A pipe closed at the top with a stopper, or other covering, produces a note one octave lower than an open pipe of the same length. Thus the note  is sounded by an open pipe of 8 feet in length, but the same note is sounded by a stopped pipe of 4 feet in length. Hence the stopped pipe is said to be of 8-feet *tone* and not of 8-feet *length*.

Stops of 8-feet length or 8-feet tone are of unison pitch, that is to say, are of the same pitch as a pianoforte.

By a law which is familiar to all, a pipe of 4 feet, proportionately formed, will sound notes an *octave higher* than one of 8 feet. So also a pipe of 16 feet will produce a sound an *octave lower* than one of 8 feet; similarly, one of 2 feet two octaves above one of 8 feet, and so on.

36. Hence a 16-feet stop on the manuals is called a *Double* stop.

37. Stops of 8 feet, or unison pitch, are called Foundation stops (if not specially voiced for solo use).

38. Stops of 4 feet, 2 feet, also of 5 feet 4 inches, and 2 feet 8 inches, are called Mutation stops.

39. Stops having several small pipes to each note are called Compound stops.

It will be convenient, therefore, to divide stops into these four heads:—

1. Double.
2. Foundation.
3. Mutation.
4. Compound or Chorus.

MANUAL FLUE-STOPS.

40. The DOUBLES most usually met with are—

LENGTH.	NAME.	CHARACTER.
Of 16-feet length or tone ...	Double Stopped Diapason or Bourdon (16-feet tone)	Soft and sweet.
	Double Gamba or Contra Gamba	Reedy, but generally soft.
	Double Open Diapason or Double Diapason, metal	Of full rich tone.

41. The FOUNDATION STOPS usually met with are:—

Of 8-feet length or tone ...	Stopped Diapason	Soft and sweet.
	Lieblich Gedackt	
	Clarinet Flute	
	Rohrflöte	
	Hohlflöte	Sweet, but of fuller tone.
	Harmonic Flute	
	Salcional or Salicet	Soft and reedy.
	Dulciana	
	Keraulophon	
	Gamba or Viol da Gamba	Very reedy.
	Gemshorn	Thin and delicate.
	Spitzflöte	
	Viole d'Amour	
	Small Open Diapason	More powerful than the above.
	Large Open Diapason	Full and rich.
	Bell Diapason	Very rich, full, and very reedy.
	Flûte à Pavillon	
	Gamba (full-toned) or Bell Gamba...	

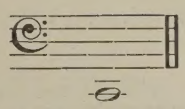
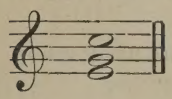
42. The MUTATION STOPS usually met with are:—

LENGTH.	NAME.	CHARACTER.
Of 4-feet length or tone ...	Flute	Sweet and bright.
	Waldflöte	
	Flûte d'Amour	
	Salicet Flute	Reedy and very bright.
	Gemshorn	
	Geigen Principal	
	Spitzflöte	
	Principal or Octave	Full-toned.
Of 2-feet length or tone ...	Piccolo	Very bright, but "fluty."
	Flageolet	
	Spitzflöte	Very bright, almost shrill.
	Gemshorn	
	Fifteenth or Super-octave	Bright and full-toned.
Of 5 feet 4 in.	Quint	Full tone; adds breadth and dignity in combination.
Of 2 feet 8 in.	Twelfth	Full tone; adds richness in combination.

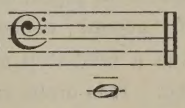
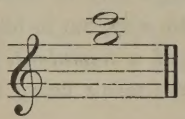
[*Some authors exclude stops of 4 ft. and 2 ft. from the class "Mutation," as being only reduplications of the unison; but as stops of 4 ft. and 2 ft. are not foundation-stops, it will be advisable to include them under the head Mutation.*]

43. The COMPOUND STOPS usually met with are—

These stops have several pipes to each note	Echo Cornet	Soft in combination.
	Sesquialtera	Adds fulness.
	Furniture	,, ,,
	Mixture...	Adds brilliancy.
	Sharp Mixture...	,, ,,

So much variety is found as to the number of ranks of Compound stops, their scales, &c., that a separate treatise might well be written on this subject alone. The young reader must be content to know that generally a Sesquialtera is so arranged that on playing the note  the following sounds are produced: 

As the continuation upwards of such a series of small pipes would be impossible, there is at certain notes a *break* or *return* to the same sound as an octave lower. This is the case with all Compound stops.

If the Mixture stop be drawn and the note  be played, generally, the following sounds will be heard:  but these are very soon changed by a break.

Sometimes a Sesquialtera will contain five ranks, and thus include in it the pipes usually included in the Mixture also.

MANUAL REED-STOPS.

44. The FOLLOWING LIST includes the principal stops of this class :—

LENGTH.	NAME.	CHARACTER.
Of 16-feet length	Tenoroon, or Contra Hautboy	Soft and rich; generally on the Swell Organ.
	Double Bassoon	
	Double Trumpet	Full-toned and rich.
	Trombone	
	Contra Posaune	
Of 8-feet length	Oboe (Orchestral)	Of special quality of tone; generally used independently as solo stops.
	Clarinet	
	Corno di Bassetto	
	Cor Anglais	
	Vox Humana	
	Hautboy	Soft and sweet; used on Swell as Foundation stop.
	Horn	Full and rich (when on Swell).
	Cornopean	
	Trumpet	
	Posaune	Loud and rich.
	Tromba	
	Harmonic Trumpet	Very loud and brilliant (generally on a high pressure of wind).
	Tuba Mirabilis	
Of 4-feet length	Octave Hautboy	Bright.
	Clarion	Very bright.

Reed-stops of 2-feet length are extremely rare in the manuals; those of $5\frac{1}{3}$ feet and $2\frac{2}{3}$ feet are never made in this country. Compound reed-stops are unknown.

45. Certain stops do not exactly come under any of the above divisions—such, for instance, as the Vox Angelica, Voix Céleste, or Unda Maris, a stop of an undulating, wavy tone, the peculiar effect of which is produced by placing together two ranks of *Dulciana* or *Salcional* pipes, and then making one rank slightly flatter than the other. The *beats* which result from the want of "accord" cause the characteristic waviness.

The Vox Humana or Voix Humaine is a reed-stop of a strange "whining" sort of tone, supposed by imaginative hearers to resemble the human voice. It is often used not only as a solo stop, but in full chords; and its likeness to the human voice divine is thought to be largely increased by the use of a *tremulant*, or mechanical contrivance for producing a regularly recurring disturbance of the supply of wind, the result being that the tones sound unnaturally nervous and highly mock-pathetic.

The Tuba Mirabilis and Harmonic Trumpet, though generally used as solo stops, are occasionally, for a short time, used in conjunction with the full organ, if a remarkably grand *fortissimo* is required.

PEDAL FLUE-STOPS.

46. The all-important distinction between stops on the Pedal Organ and those on the Manuals is that the former are uniformly *one octave lower in pitch*. Thus, as the Open Diapason of a Manual is of 8-feet length, the Open Diapason on the Pedal Organ will be of 16 *feet;* also, as the *Double* stops of the manuals are of 16-feet length or tone, those of the pedals are 32 *feet*.

47. The DOUBLES most usually found on the Pedal Organ are—

LENGTH.	NAME.	CHARACTER.
Of 32-feet length or tone ...	Sub-bass, or Double-stopped Diapason, or Contra Bourdon (32-feet tone)	Very soft; of little use but in combination.
	Double Diapason	Very rich and fine down to lowest G or F, then chiefly useful in combination.

48. The FOUNDATION STOPS of a Pedal Organ are usually—

Of 16-feet length or tone ...	Bourdon (16-feet tone)	Soft and most useful.
	Violone	
	Open Diapason	Full and heavy.

49. The MUTATION STOPS usually found on a Pedal Organ are—

Of 8-feet length or tone ...	Stopped Flute (8-feet tone)	Sweet and soft; generally useful.
	Violoncello	
	Principal or Octave	Full-toned; most useful to strengthen the bass.
Of 4-feet length	Fifteenth or Super-octave	Adds brightness.
Of 10 feet 8 inches	Quint	Produces a very heavy tone in combination.
Of 5 feet 4 inches	Twelfth	Adds brightness.

50. A COMPOUND STOP is often found on large Pedal Organs, namely:—

Mixture	Of three or more ranks.

PEDAL REED-STOPS.

51. The FOLLOWING LIST includes the chief stops of this class:—

Of 32-feet length	Contra Fagotto	Soft, but only useful in combination.
	Contra Posaune	Most useful addition to full power.
	Contre Bombarde	
Of 16-feet length	Fagotto or Bassoon	Soft and frequently useful.
	Trombone	Adds weight to a *forte* combination.
	Posaune	
	Bombard	Of great power and grandeur.
	Ophicleide	
Of 8-feet length	Bassoon	Soft and useful.
	Clarion or Trumpet	Gives brilliancy to a *forte* combination.
Of 4-feet length	Octave Clarion	Adds brilliancy.

COMBINATION OF STOPS.

The following tables of combinations will teach the student the principles on which stops are added to each other, and what stops to draw when practising by himself. It will be found that in the case of a large organ the numbers of Foundation, Mutation, and Compound stops remain in much the same proportion as in a small instrument:—

GREAT ORGAN.

52. The progressive stages of tone on the Great Organ will be (if the instrument has no Choir Organ)—

- Dulciana, 8 feet
- Lieblich or
- Stopped Diapason, 8-feet tone — *pp*
- Gamba (if soft), 8 feet
- Flute, 4-feet tone or 4 feet — *p* (bright) (other combinations as below.)

Or (if there is a Choir Organ)—

	pp	*p*	*mf* (rich)	*mf* (fuller and brighter)	*mf* (almost *f*)	*f*	*ff*
Clarabella, 8 feet, or							
Stopped Diapason, 8-feet tone							
Soft Open Diapason, 8 feet							
Large Open Diapason, 8 feet							
Gamba, 8 feet							
Flute, 4 feet							
Principal, 4 feet							
Double Diapason, 16 feet or 16-feet tone							
Twelfth, 2 feet 8 inches							
Fifteenth, 2 feet							
Sesquialtera							
Mixture							
Double Trumpet, 16 feet							
Trumpet, 8 feet							
Clarion, 4 feet							

If the Great Organ pipes are not on a high pressure of wind, the following would be a common gradation of power on a small instrument:—

	pp	*p*	*mf*	*f*	*ff*
Stopped Diapason, 8-feet tone					
Clarabella, 8 feet					
Open Diapason, 8 feet					
Principal, 4 feet					
Flute, 4-feet tone					
Twelfth, $2\frac{2}{3}$ feet					
Fifteenth, 2 feet					
Bourdon, 16-feet tone					
Sesquialtera					
Trumpet, 8 feet					

The Stopped Diapason and Clarabella or Harmonic Flute (8 feet) are valuable as solo stops.

A good "Small Open Diapason" is often most useful as a solo stop, especially in the middle and lower portions.

Other combinations, such as Flute, 4-feet tone, with Bourdon, 16-feet tone, or the trumpet with or without the Diapasons, will be found available for special effects.

SWELL ORGAN.

53. The chief characteristic of the Swell Organ is the number of its reed-stops. The fine *crescendo* obtained by their use accounts for this.

The following will show the ordinary gradations of tone required :—

	pp	*pp* (rather fuller)	*p*	*mf*	*f*	*ff*
Vox Angelica,* or Salcional, or Dulciana, 8 feet	...	...	...	...	...	...
Stopped Diapason, or Lieblich, 8-feet tone	...	...	...	...	...	...
Open Diapason, 8 feet	...	...	...	...	...	...
Double Dulciana, or Bourdon, 16-feet tone	...	...	...	...	...	...
Principal, 4 feet	...	...	...	...	...	...
Hautboy, 8 feet	...	...	...	...	...	...
Fifteenth, 2 feet	...	...	...	...	...	...
Cornopean or Trumpet, 8 feet	...	...	...	...	...	...
Sesquialtera, or Mixture, or Echo Cornet	...	...	...	...	...	...
Double Trumpet, 16 feet	...	...	...	...	...	...
Clarion, 4 feet	...	...	...	...	...	...

Some beautiful effects may be obtained by playing *an octave higher* on such combinations as the following :—

Bourdon, 16-feet tone ; Dulciana or Salcional, 8 feet ; } or { Double Dulciana, 16 feet ; Stopped Diapason or Lieblich, 8-feet tone ; } or { Double Trumpet, 16 feet (if soft) ; Hautboy, 8 feet.

If the stops of a Swell Organ are thoroughly well balanced as to tone, a mysterious and solemn effect can often be obtained by using all the stops *except the reeds*, or, as it is termed, playing "full without reeds."

On many Swells the following is a peculiar but charming combination :—

Bourdon, 16-feet tone, or Double Dulciana, 16 feet
Stopped Diapason, 8-feet tone ... ...
Open Diapason, 8 feet ... ...
Principal, 4 feet ; Flute, 4-feet tone ... .
Fifteenth, 2 feet, or Piccolo, 2 feet ... ...

The stops on the Swell often used for solos are—

Hautboy (alone, or with a Diapason) ... ... } Accompanied on Choir, *p*.

Cornopean or Trumpet (alone or with a Diapason) ... } Accompanied on Choir, *p*. or Great, *pp*.

---

* The Vox Angelica is *rarely* used in *combination*.

CHOIR ORGAN.

54. As a rule, stops of a delicate quality of tone are generally assigned to the Choir Organ. The following would be ordinarily a graduated list of combinations on the Choir Organ:—

Dulciana, or
Salcional, 8 feet ... } *pp*
Viol da Gamba, 8 feet ... } *p*
Lieblich or
Stopped Diapason, 8-feet tone ... } *mf*
Clarabella ... ...
Open Diapason ... ... } *mf* (bright)
Flute, 4 feet ... ...
Principal, 4 feet ... ... } *f*
Piccolo or
Flageolet, 2-feet tone ... ... } *ff* (very bright)

Solo combinations on Choir Organ:—

Flute, 4 feet ... } Very bright and pretty.
Viol da Gamba, 8 feet }

Flute, 4 feet ... } Clear and sweet.
Clarabella, or
Lieblich ... }

Clarinet, or
Cremona, or
Krummhorn, or
Corno di Bassetto, 8 feet, with
Lieblich, or Clarabella } Very full and rich, but soon becomes monotonous.

Piccolo, 2 feet
Stopped Diapason, or
Lieblich } Very brilliant for rapid runs in variations, &c. Must be used sparingly.

The addition of a 4-feet flute to a stop of "clarinet" tone produces a somewhat tender and mournful effect.

Solo stops or combinations on the Choir Organ will ordinarily be accompanied by a soft (not too soft) combination on the Swell.

In cathedrals and churches where there is a choral service, the soft stops of the Choir Organ form a charming accompaniment to a solo voice or voices *soli;* but this organ is rarely powerful enough to give support to a large number of voices singing *forte.*

SOLO ORGAN.

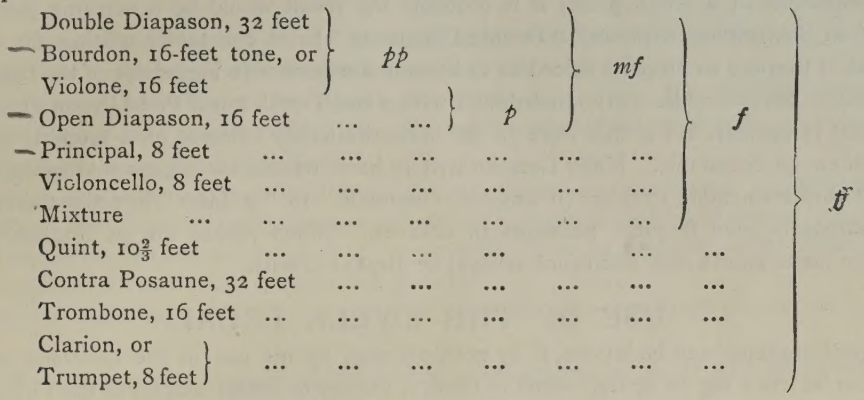
55. As its name implies, to this organ are assigned stops for solo use. Except in very large organs, not more than four distinct qualities of tone are found amongst these registers, namely, Flute (8 feet or 4 feet), Oboe (Orchestral), Clarinet, Tromba (or Tuba).

It will hardly be expected that anything should be said as to the "combination" of stops specially intended for independent use. All that need be pointed out is, that many organists use always an 8-feet Flute or Clarabella with the Clarinet, in order to give it more *body.* Some players use always an 8-feet Flute with the solo Tromba (or Tuba) because it gives mellowness to the tone.

The solo stops can be accompanied by any row of keys found suitable. On account of the remarkable power of the Tromba, the Great Organ is frequently used as an accompaniment to it. When this stop is of a rich pure tone it may occasionally be used in full chords, either on its own row of keys or coupled to the full "Great."

PEDAL ORGAN.

56. On small organs the player has not a large number of pedal stops to select from. On large instruments considerable skill may be displayed in the use of varieties of tone on the Pedal Organ and their adjustment to the power and quality of the manuals. On organs with two pedal stops, a Bourdon, 16-feet tone (or in its place a Violone of 16 feet), forms the soft pedal, and an Open Diapason of 16 feet is added for *forte* passages; all other gradations of tone being obtained by coupling the manuals to the pedals. A pedal stop of 32-feet length is rarely used alone except in its upper portion.



On large organs having some very delicate pedal reed-stops such as Fagotto, 16 feet, or Fagotto, 8 feet, some delightful effects can be produced by their judicious use.

It is very difficult to give any definite advice as to the coupling of manuals to pedals. For *legato* playing and where uniformity of tone is necessary, it is generally advisable to couple them to the particular manual on which the chief harmonies are being played. Soft *staccato* passages, however, generally sound better when played on pedal stops without any manual being coupled.

Young organists should be specially warned against the use of too many pedal stops. The overweighting of the manual-tone by the Pedal Organ becomes exceedingly unpleasant if continued for any length of time. Variety is as important in the use of pedal stops as in every other department of playing.

MANUAL COUPLERS.

57. In all pieces or passages in which the *crescendo* of the Swell is required in addition to the steady, dignified tone of the Great, it is usual, of course, to couple the Swell to the Great Organ; but, on the other hand, the occasional use of the Great *without* the Swell coupler, especially if the diapasons are good, will be found to produce a very pure and "fresh" effect.

58. When an organ contains a coupler "Swell to Choir," this may be drawn with advantage, either for the purpose of adding a *crescendo* to a passage being played by both hands on the Choir; or, when a solo combination is being used on the Choir with accompaniment on the Swell, for the purpose of producing the same *crescendo* in the accompaniment as in the solo part.

59. A very valuable addition to the Diapason or flute-tone of the Great Organ is obtainable by the coupler "Solo to Great," which enables any rich-toned stop of 8 feet or 4 feet on the Solo to be combined with the 8 feet or 4 feet stops of the Great.

60. "Octave couplers," such as "Swell to Great super-octave" or "Swell to Great sub-octave," will be found occasionally of great value, not only as productive of unusual effects, but also as enabling the player to render rapid orchestral octave passages effectively and smoothly while playing only single notes.

61. By drawing one or more fine reed-stops on the Swell, shutting off *all* the Great Organ stops, and drawing sub-octave, unison, and super-octave couplers, a very fine *crescendo* may be obtained by playing on the Great Organ manual with both hands.

GENERAL REMARKS.

62. In the matter of combining stops, a little experience is worth a vast amount of theory.

A refined ear and good taste will point out unmistakably, first, what combinations of stops produce a really good tone; next, which combination is most suitable for a particular passage.

It is specially necessary to warn young organists against implicit obedience to the directions given in arrangements for the organ. For instance, "full swell" is *pianissimo* on some organs in large buildings, but *fortissimo* on many others; "up to mixtures" in old cathedral organs means a rich *mezzo forte*, whereas in a modern organ (especially in a small place) it is probable the result would be a screamy *fortissimo*. When an "arranger" has an instrument with bad "Double Diapasons" he is constantly writing the direction "without doubles," whereas, if they are so properly voiced as to become a subordinate ingredient of the tone their frequent use is not only admissible but desirable. On an instrument with a small weak-toned Pedal Organ a good player frequently plays the pedal part in *octaves*, but if this were to be indiscriminately followed on a properly balanced instrument the effect would often be detestable. Many German writers have written for organs possessing a large independent Pedal Organ, but very intractable couplers (if any) of "manuals" to "pedals:" in order therefore to get *strength* of tone these composers give frequent passages in octaves. When played on an English organ with proper couplers these gymnastic efforts may often (not always) be dispensed with.

USE OF THE SWELL PEDAL.

63. A good organist may be known, if by nothing else, by his use of the *crescendo* of the Swell Organ. A bad player, when he has a leg to spare, seems to think it cannot be better employed than by pumping the Swell pedal up and down with utter disregard to the composer's intentions. It might often be said that such performers try to use the Swell pedal even when one leg *cannot* be spared, and thus, frequently sacrifice beautiful pedal passages by consigning their rendering to the frantic efforts of the left foot only. On one occasion the writer remembers to have heard an organist performing on an instrument having a very prominent Swell Organ case with highly-decorated shutters. He was playing on the *Choir* Organ with both hands and without using the pedals, but so strong was the force of habit, that his right leg was busily engaged working the Swell pedal. The absurd effect can be imagined; the tone remained level and passionless to the ears of the hearers, while their eyes were annoyed by the meaningless "gaping" of the Swell shutters.

The following rules should be impressed on young players:—

"Never use the Swell pedal unless the proper expression of the music demands a *crescendo* or *diminuendo*."

"Never sacrifice the proper performance of a pedal passage for the sake of using the Swell pedal."

"Be as careful of the way you let the pedal return upwards as of the way you press it down."

"Observe carefully the length of the passage marked *crescendo*, and do not get the Swell fully open till the *climax*—unless you are prepared to carry on the *crescendo* by adding stops."

"The Swell *crescendo* is the more effective, if not used too frequently."

MANAGEMENT OF STOPS.

64. Stops should on no account be changed either by composition pedals, pistons, or the hand, unless it can be done without breaking the time or disturbing the rhythmical form of the music.

It is the more important to impress this on the young organist at the present time, inasmuch as it has become a vicious fashion among a certain class of organists to hold down a chord for more than its proper duration with one hand while the other is ostentatiously hunting about for stops. This trick is bad enough when it happens to be the final chord of one movement which is unduly protracted for the purpose of preparing the stops for that which is to follow; but when, as is often the case, it is a chord in the middle of a passage which is selected for protraction, only because it can be conveniently held down by one hand, the effect is truly distressing. The beginner will therefore do well to bear the following rule in mind:—

"Never sacrifice the time or rhythm of a passage in an attempt to change the stops. Consider that the alteration of stops should have the result of producing a better rendering of an author's composition, not of ruining its effect."

PART IV.

PRACTICAL STUDY.

65. The student who wishes to become a *good* organist should not commence his practice on the king of instruments until he has a thorough knowledge of musical notation, can read fairly at sight, is able to play *all* his scales evenly and rapidly on the pianoforte, and, above all things, can carry his hand in a good position whilst playing chords or scales.

The "Rudiments of Music" can be learned from the Primer so named published in this series; and the *formation of the hand* will soon be achieved by the help of a careful teacher and the "Pianoforte" Primer.

For giving elasticity of action to the fingers and wrists, for forming the position of the hand, and for training the touch, the pianoforte stands unrivalled. All this portion of an organist's work (and it is a *most* important portion) should be done *at the pianoforte.*

It should be distinctly understood that these things cannot be learnt on a harmonium, for, delightful and useful as that long-suffering instrument is, it cannot, from its nature, so well lead a player to good organ-playing as can the pianoforte.

The student should not be in a hurry to get to the organ itself. It is no exaggeration to say that more organists have been spoilt by beginning their instrument too soon than too late.

We will assume then that our pupil has received *permission* to commence organ-practice from a trustworthy master.

66. The difficulties peculiar to performance on and management of an organ, as distinguished from a pianoforte, may be classified as follows:—

1. Playing with the feet, or pedalling.
2. Independence of movement between the hands and feet, separately and in combination.
3. Use of the *legato* and *staccato* touch.
4. Management of the stops and various mechanical appliances.
5. Method of playing with expression.

67. The nature of these special characteristics of the organ must be kept separately in the mind, although the pupil will, *in practice*, soon meet them in combination.

It may be thought strange that a "method of playing with expression" should be considered a distinctive feature of organ-playing; but the fact is the pupil will not be long before he finds that his musical feeling has to be *expressed* on the organ in a very different way to that usual on the pianoforte, and he will observe that ignorance of this fact is a fruitful source of poor and unsatisfactory performance.

68. The first thing to be learnt on reaching the organ is, *how to sit.* It is of the utmost importance that the body should be so placed as to be in readiness for anything required of it.

The following is the test of a good position:—

When seated, lift up both feet and hold them just over the pedals so that they could play, if required, either on the long or short pedal-keys, *at the same time* holding both hands over the manuals so that they could play, if required, on any of the manuals either separately or in conjunction with the feet.

If the pupil, while in this position, has an uncomfortable sensation that he is likely to knock his nose against the desk, the organ-stool is too far away from the keys or he is sitting too near to its edge.

If the pupil cannot move his knees freely to the right and left, the stool is either too near the keys or he is sitting too far on it.

69. Shoes or boots worn when playing should not be made too *narrow* or too *round* at the toe; they should have fairly deep heel-pieces. The reason why it is necessary to have heel-pieces will be explained hereafter. Lady-pupils should avoid very small and also very circular heel-pieces, unless indeed they are prepared to undergo a temporary imprisonment or purchase liberty by the sacrifice of a boot. The *soles* should be of moderate thickness; for if they are too thin, many delicate muscles of the foot will be called into play whose co-operation is totally unnecessary in pedalling, but whose use will cause *great fatigue* to the hard-working student.

70. There are two kinds of pedal-boards, known as straight and radiating; both are sometimes made slightly *concave*, that is, rise gradually at the extremities. Radiating pedal-boards were invented by Mr. Henry Willis.

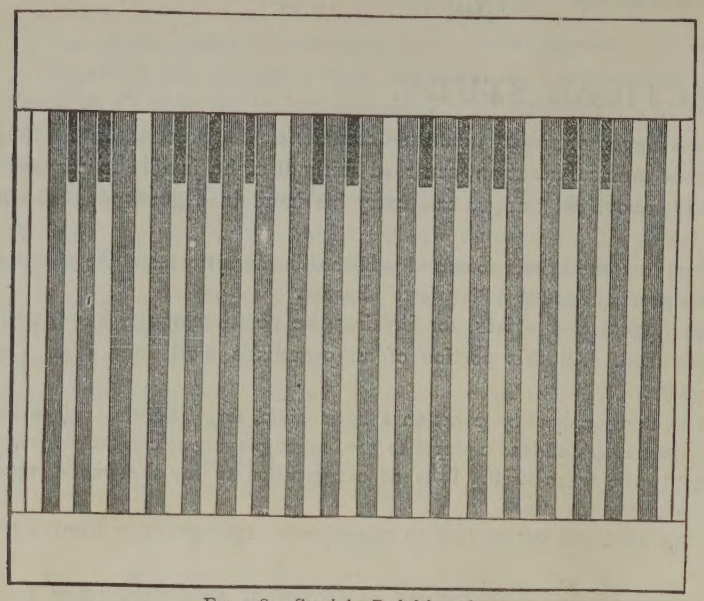


FIG. 28.—Straight Pedal-board.

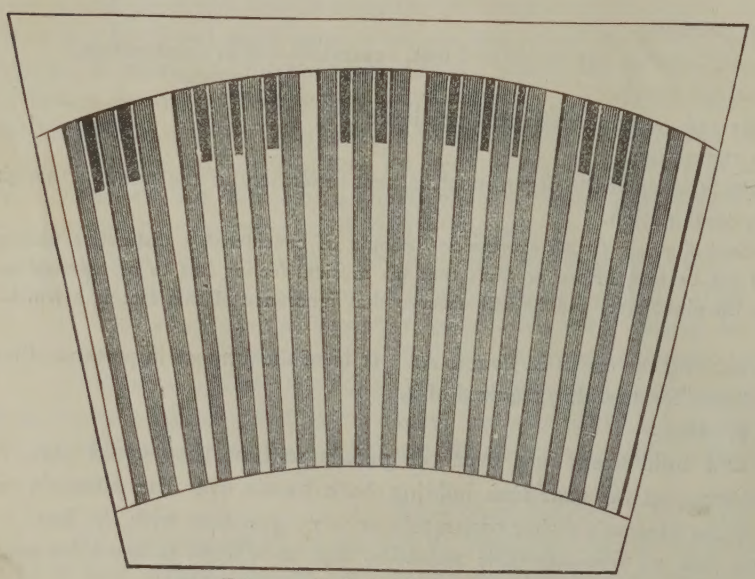


FIG. 29.—Radiating Pedal-board.

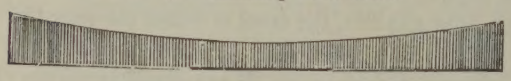


FIG. 30.—Section showing concavity of Pedal-board.

The pedals are played in three ways:—

(1) By the tip of the toe.

(2) By the heel.

(3) By the flat part of the sole.

(1) Many passages can be easily and neatly played by the toes only.

(2) The heel is only used immediately before or after the toe of the same foot. Hence, passages in which systems (1) and (2) are combined are said to be "toed and heeled."

Single separate notes are never played by the heel.

(3) The flat part of the sole of the foot is only used in those scales or portions of scales which contain three sharp-keys (short pedal-keys) in succession.

Thus, if F♯, G♯, A♯, or G♭, A♭, B♭ follow each other upwards or downwards in succession, two of the notes must be played by placing the sole of the foot over *both* and then pressing down one key with one side of the foot, the other key with the other side.

71. As the pupil gains experience he will find that the three systems (1) (2) (3) above named, are constantly mixed together. But, as a general principle, it may be stated that "toe and heel" is the easiest method of playing passages at the two extremes of the pedal-board (that is, passages which are very high or very low); while, on the other hand, pure "toeing" is easiest for passages in the central portion of the board, that is, passages lying just below the player's body.

72. Before taking the first lesson in pedalling it is of great importance to know that—

The weight of the leg should never be used for pressing down the pedal-keys; only that force should be used which can be obtained from the free use of the ankle-joint.

This rule is analogous to that laid down by pianoforte teachers to the effect that octave passages should be played *from the wrist* and not from the arm and shoulder. The pupil will know by experience how futile it is to attempt to play octaves rapidly on the pianoforte unless the wrist-joint is perfectly free; so also he will soon find that his leg is far too clumsy to be used as a sort of *hammer* for driving down the foot, whereas, if the ankle-joint is properly used, rapid pedalling is quite easy.

When seated at the organ try and imagine that your foot moves (as it actually does) upon a centre or pivot of its own, as shown in Fig. 31 by the asterisk.

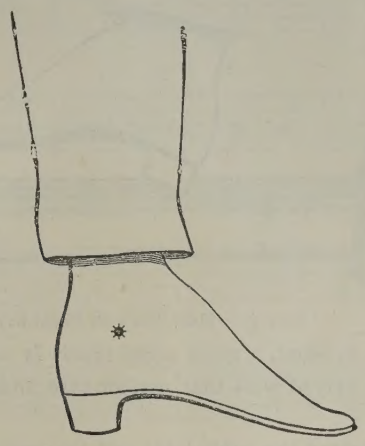


Fig. 31.

Then, if you are using the proper method of touching the pedals, you will feel, when your *toe* goes *down*, as if your *heel* were coming *up;* and when your heel goes down, as if you were *raising the toe*.

There is no reason therefore why the whole leg should jump up and down during pedalling, and such a habit is both unnecessary and ugly.

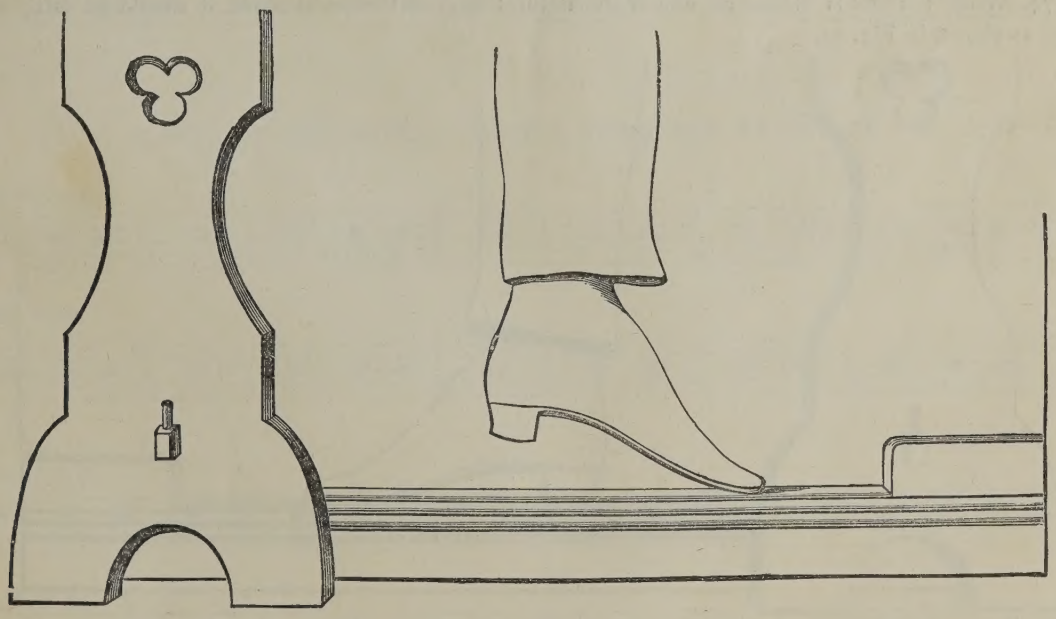


Fig. 32.—Toe down on Pedal-key.

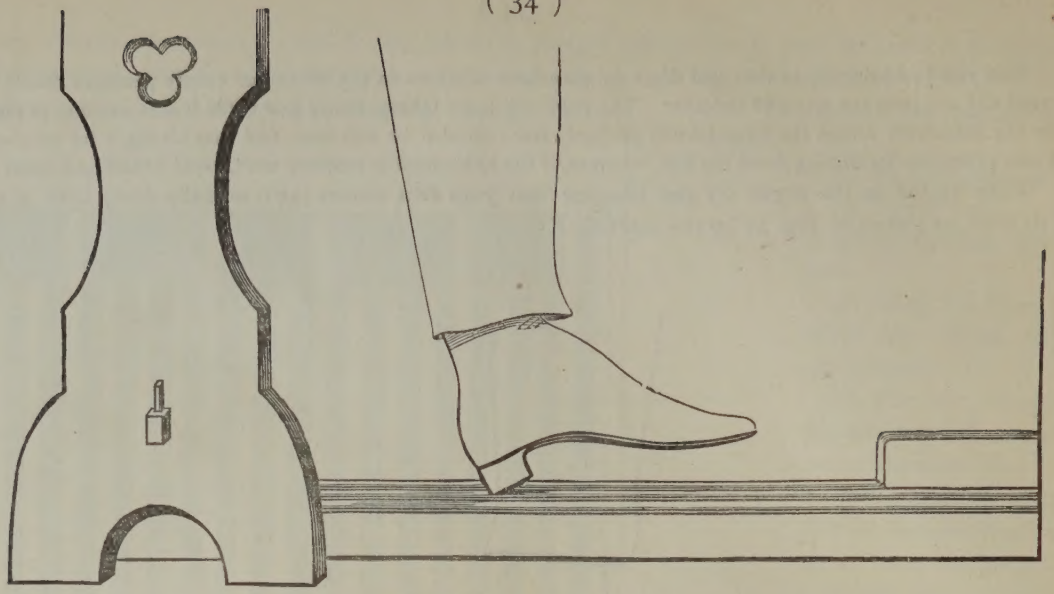


FIG. 33.—Heel down on Pedal-key.

If, by constantly bearing this in mind, a good pedal-touch is obtained, the ankle-joint will become elastic and free, and rapid passages can be played with that perfect ease and quietness so characteristic of a really good organist.

But if the pedal-touch be neglected the ankle-joint will become stiff and rigid, and the *weight of the leg* will be used to drive the sole of the foot on to the pedal-keys, resulting perhaps in the destruction of some of the delicate mechanism of the instrument, but most certainly in rendering the performance of rapid passages *absolutely impossible.*

73. Before sitting down to play on a strange organ the pupil should have a good look at the pedal-board, but when once seated, he should on no account be allowed to steal occasional peeps at it.

This rule is laid down in order that the pupil may begin at once to play the pedals with confidence and without hesitation. A *nervous* pedallist distresses his hearers as much as himself.

74. When the foot is placed on one of the natural keys of the pedal-board, it should be fairly up to the *sharp-keys* as shown in Fig. 34.

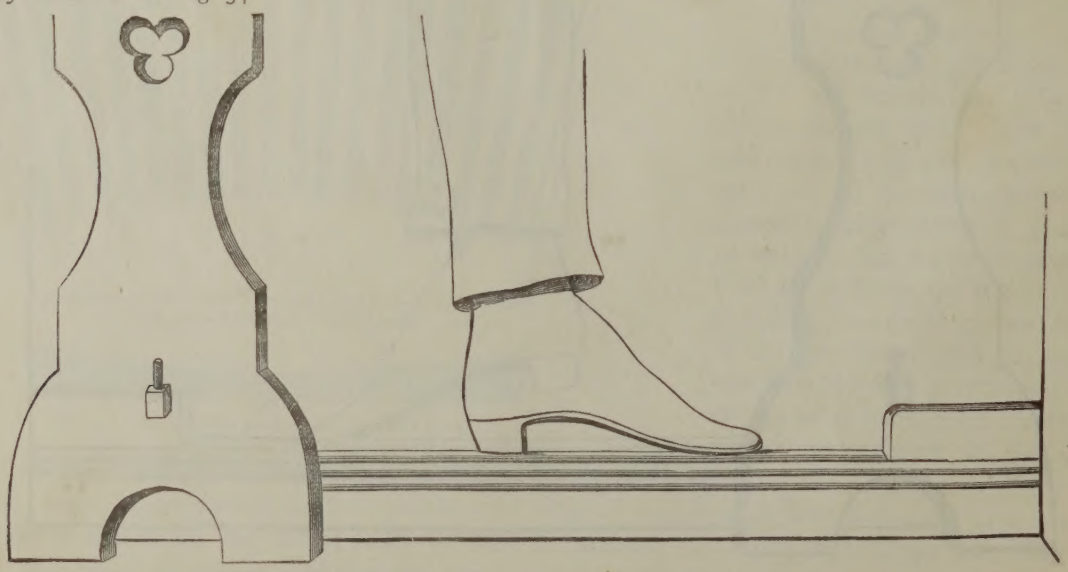
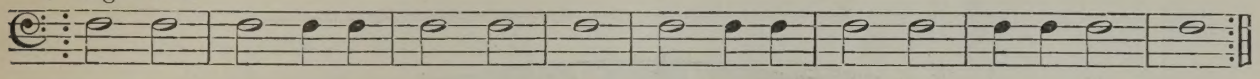


FIG. 34.

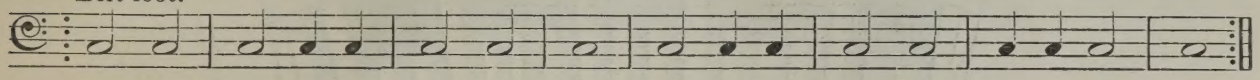
EXERCISES FOR THE FREE USE OF THE ANKLE-JOINT.

TO BE PLAYED BY THE TOES, WITHOUT ANY "UP AND DOWN" MOVEMENT OF THE KNEES.

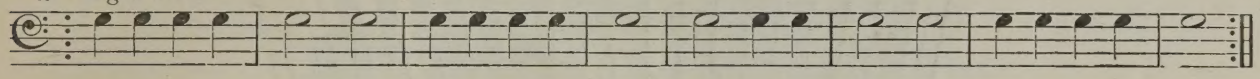
1 Right foot.



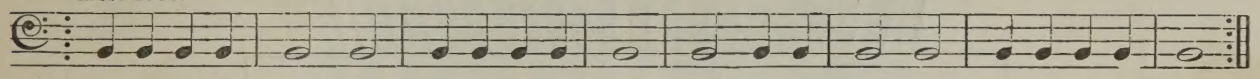
Left foot.



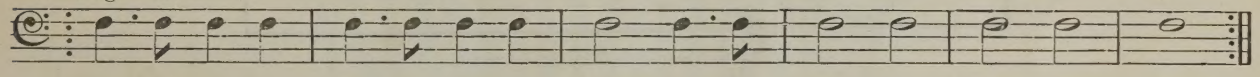
2 Right foot.



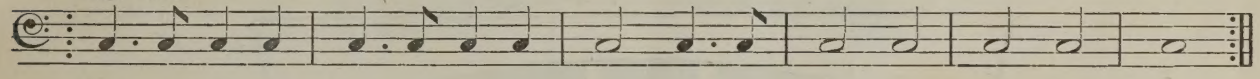
Left foot.



3 Right foot.

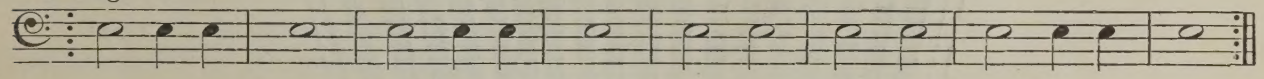


Left foot.

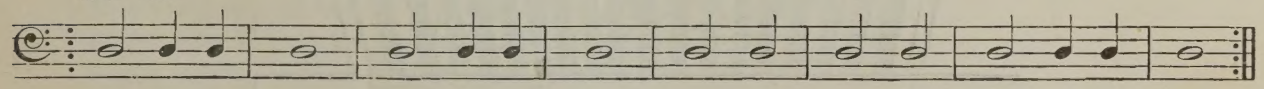


TO BE PLAYED BY THE HEELS, WITHOUT USING THE WEIGHT OF THE LEG.

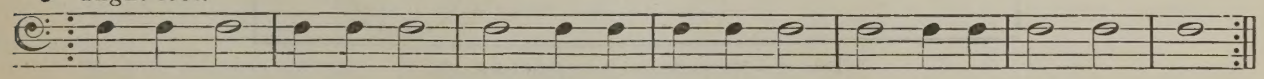
4 Right foot.



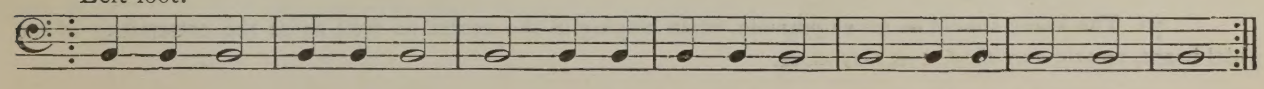
Left foot.



5 Right foot.



Left foot.



75. Nothing is more fatal to good pedalling than the vicious habit of shuffling along the seat—to the right-hand side in search of high notes, to the left-hand side in search of low notes.

The pupil should never forget that by changing his position on the organ-stool he alters every one of the measurements from his body to the pedal-keys.

The following (Figs. 35 and 36) will make this plain :—

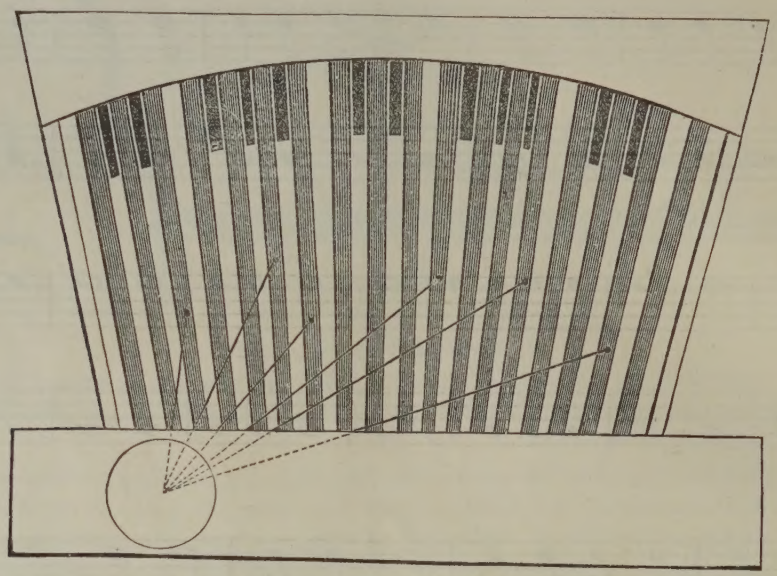


FIG. 35.—Measurements from left-hand side.

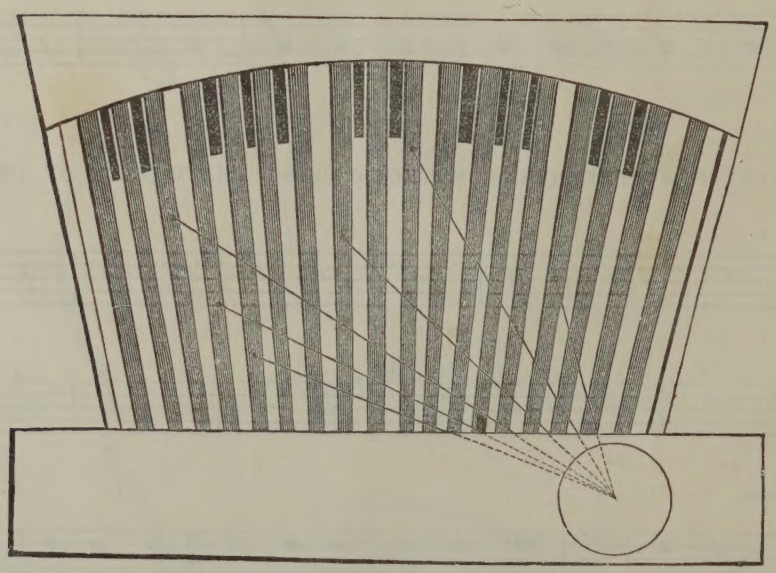


FIG. 36.—Measurements from right-hand side.

76 The knees should as far as possible, when playing in the centre as well as at the extremities of the pedal-board, *remain over the feet as they move.*

77. When the sign ▽ is placed *over* a note, that note is to be played with the *right toe.* When the same sign △ is placed *under* a note, that note is to be played with the *left toe.*

When the sign ○ is placed *over* a note, that note is to be played with the *right heel.* When the same sign ○ is placed *under* a note, that note is to to be played with the *left heel.*

METHOD OF PEDALLING WITHOUT LOOKING AT THE FEET.

78. Having taken a proper position on the organ-seat as described in section 68, page 31, the student should now learn the system of finding different notes on the pedals by *feeling with his toes.* This is done by discovering the gaps between the short keys, corresponding exactly to the open spaces at the back of the white keys of a pianoforte between B♭ and C♯ and E♭ and F♯. The position of these spaces is shown by U, V, W, X, Y, Z in the following (Fig. 37):—

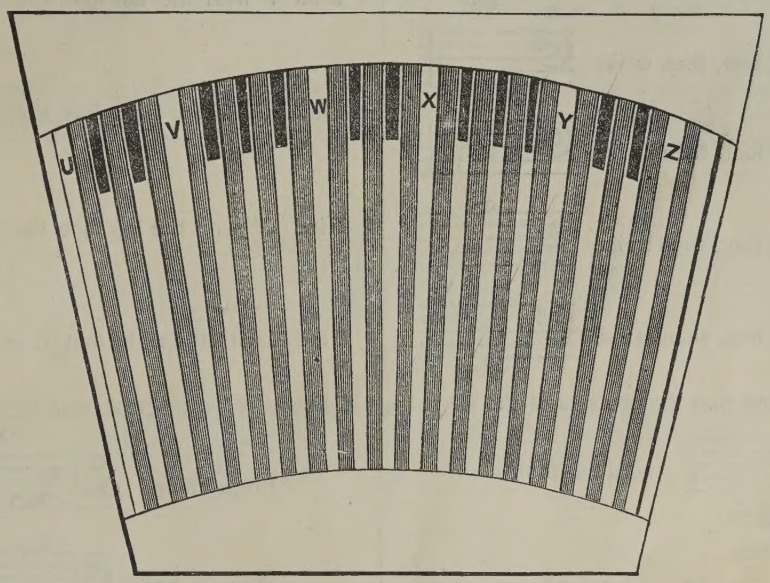


FIG. 37.

It will be seen that when the foot is thrust into V, the flat of the foot will be over the extreme ends of the keys E and F; when into W over B and C; when into X over E and F, and so on.

Having drawn some 16-feet pedal-stops and coupled the Great (up to Principal) to the pedals, the pupil should be asked to find the gaps and *place his foot in them* without causing the pipes to speak. Thus:—

Find Y with the right foot. (Prove it by making B♭ or C♯ to speak.)

Find V with the left foot. (Prove it by touching F♯.)

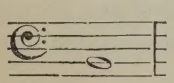
Find X with the right foot. (Prove it by touching E♭ or F♯.)

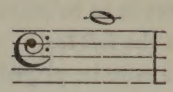
Find Z with the right foot. (Prove it by touching E♭.)

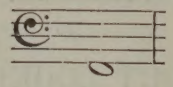
Find U with the left foot. (Prove it by touching C♯.)

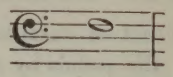
Find W with the left foot. (Prove it by touching B♭ or C♯.)

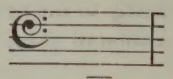
When the pupil has become quite familiar with the process of finding these spaces he may proceed to find the notes lying near them and make them sound, placing his foot firmly on the pedal keys. Thus:—

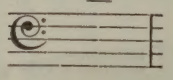
Find W with the left foot. Then, after *feeling the sides of the short keys* B♭ and C♯, draw the foot out and strike  firmly and without any hesitation, making it sound freely.

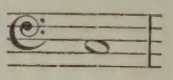
Find Y with the right foot, then strike 

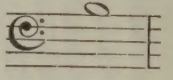
Find V with the left foot, then strike 

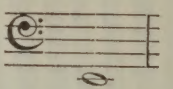
Find X with the right foot, then strike 

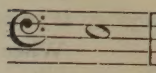
Find U with the left foot, then strike 

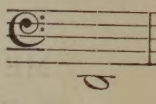
Find Z with the right foot, then strike 

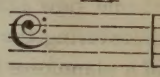
Find W with the left foot, then strike 

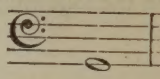
Find Y with the right foot, then strike 

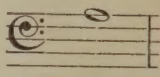
Find V with the left foot, then strike 

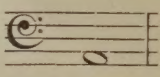
Find X with the right foot, then strike 

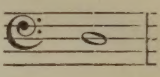
Find U with the left foot, then strike 

Find Y with the right foot, then strike 

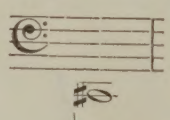
Find V with the left foot, then strike 

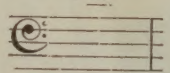
Find Y with the right foot, then strike 

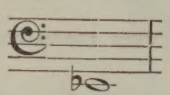
Find W with the left foot, then strike 

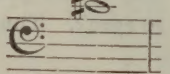
Find X with the right foot, then strike 

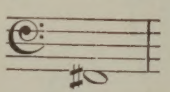
It will be found that the position of the short keys is discovered with great ease by this method.

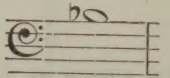
From U find  with left foot.

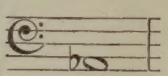
From Z find  with right foot.

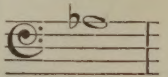
From V find  with left foot.

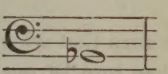
From Y find  with right foot.

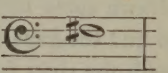
From V find  with left foot.

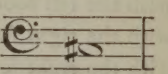
From Y find  with right foot.

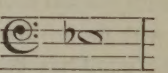
From W find  with left foot.

From Y find  with right foot.

From W find  with left foot.

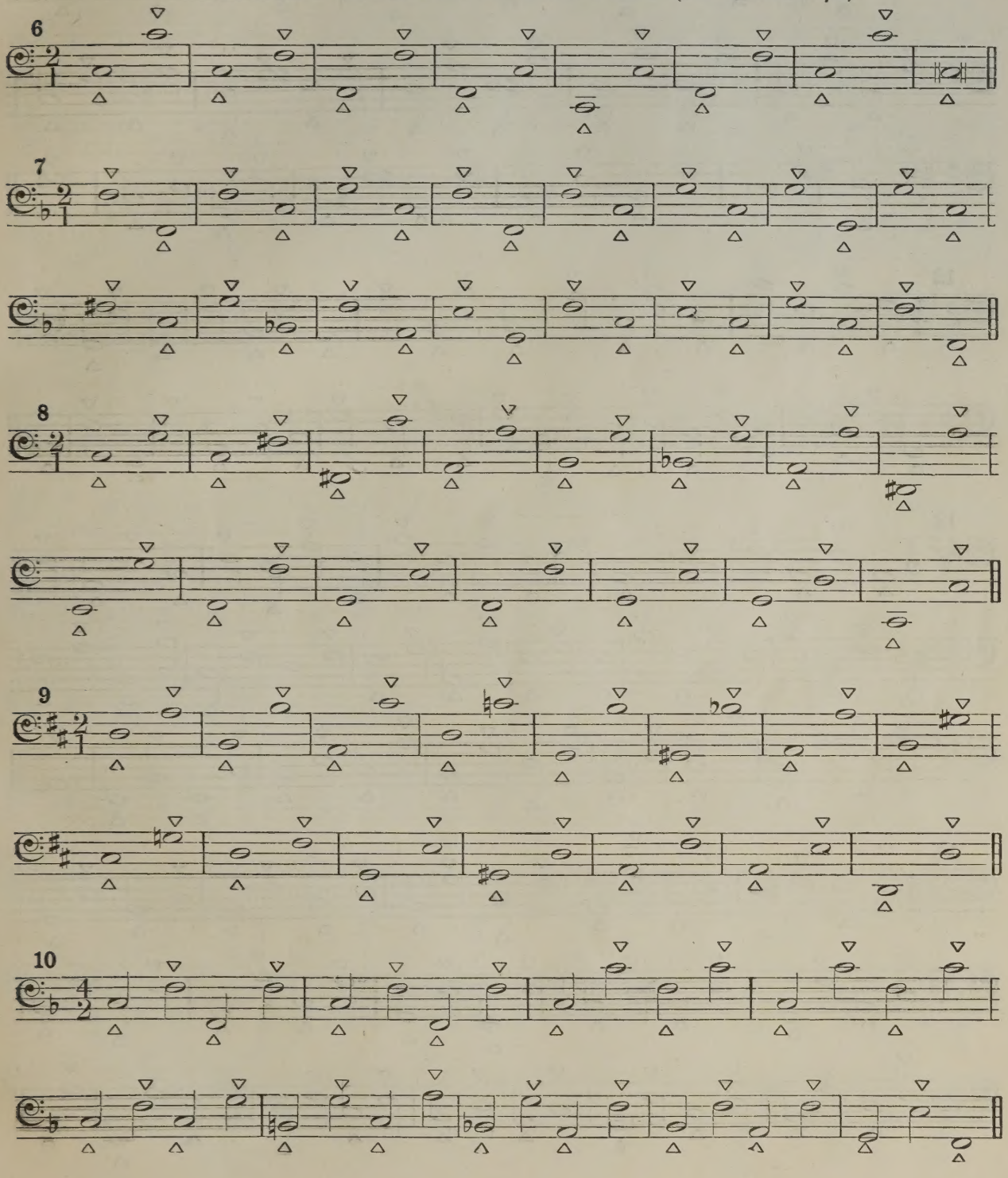
From X find  with right foot.

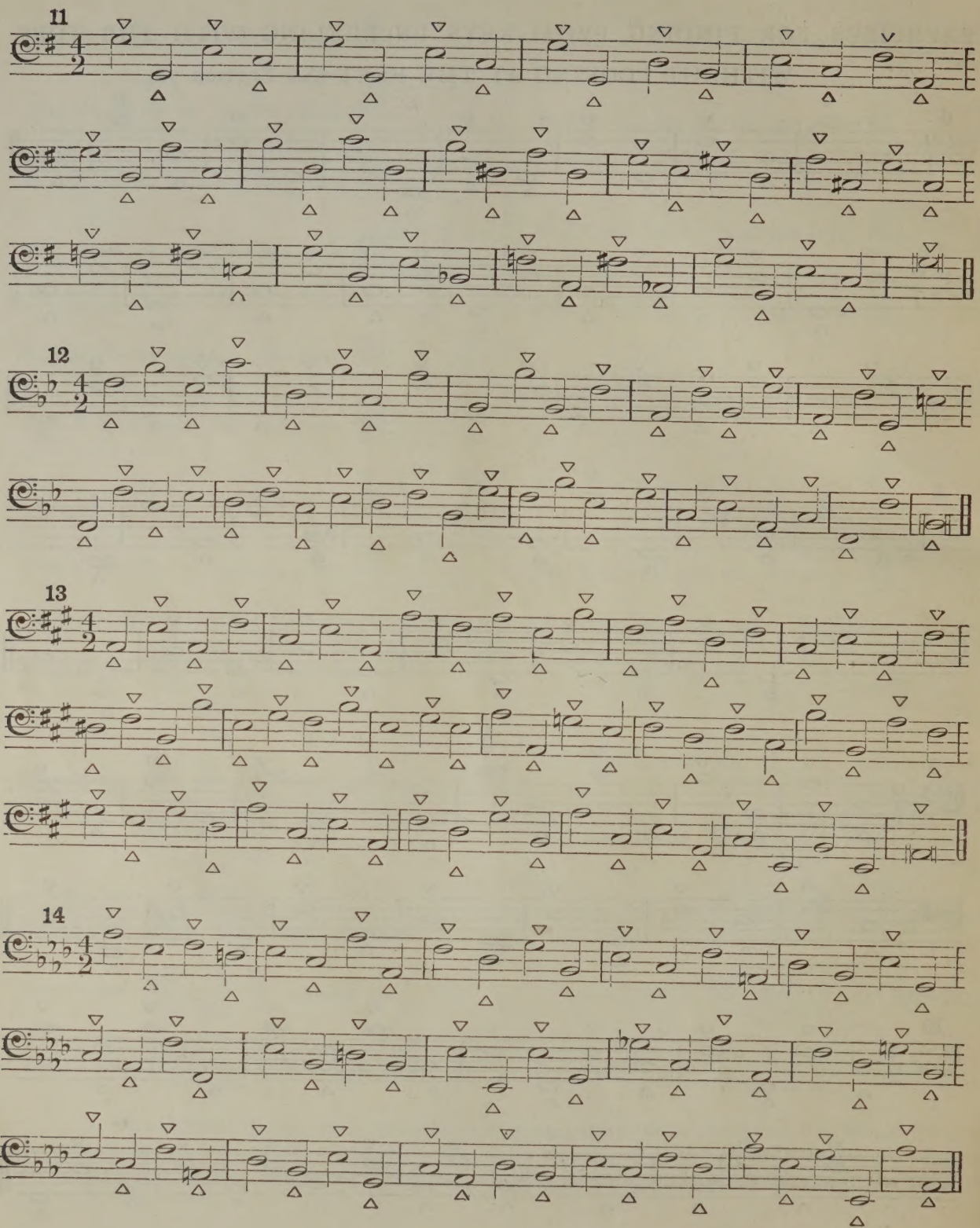
From W find  with left foot.

From X find  with right foot.

This method of feeling for the whereabouts of notes is exactly that pursued by a blind man on his commencing to play on the manuals. He feels for the spaces between the black keys and thus gets his bearings. Having no eyes in our toes, we cannot do better than adopt this very natural system of discovering the locality of the pedal-keys required.

EXERCISES FOR FINDING PEDAL-KEYS BY FEELING WITH THE TOES, WITHOUT LOOKING AT THE FEET (*See* SECTION 78).

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79. If the pupil can now place his foot on any pedal-key *without looking* and without any hesitation, he may proceed to practise exercises for alternate toes, which will serve the double purpose of rendering his ankle-joint elastic, and of accustoming him to the measurement of intervals on the pedals.

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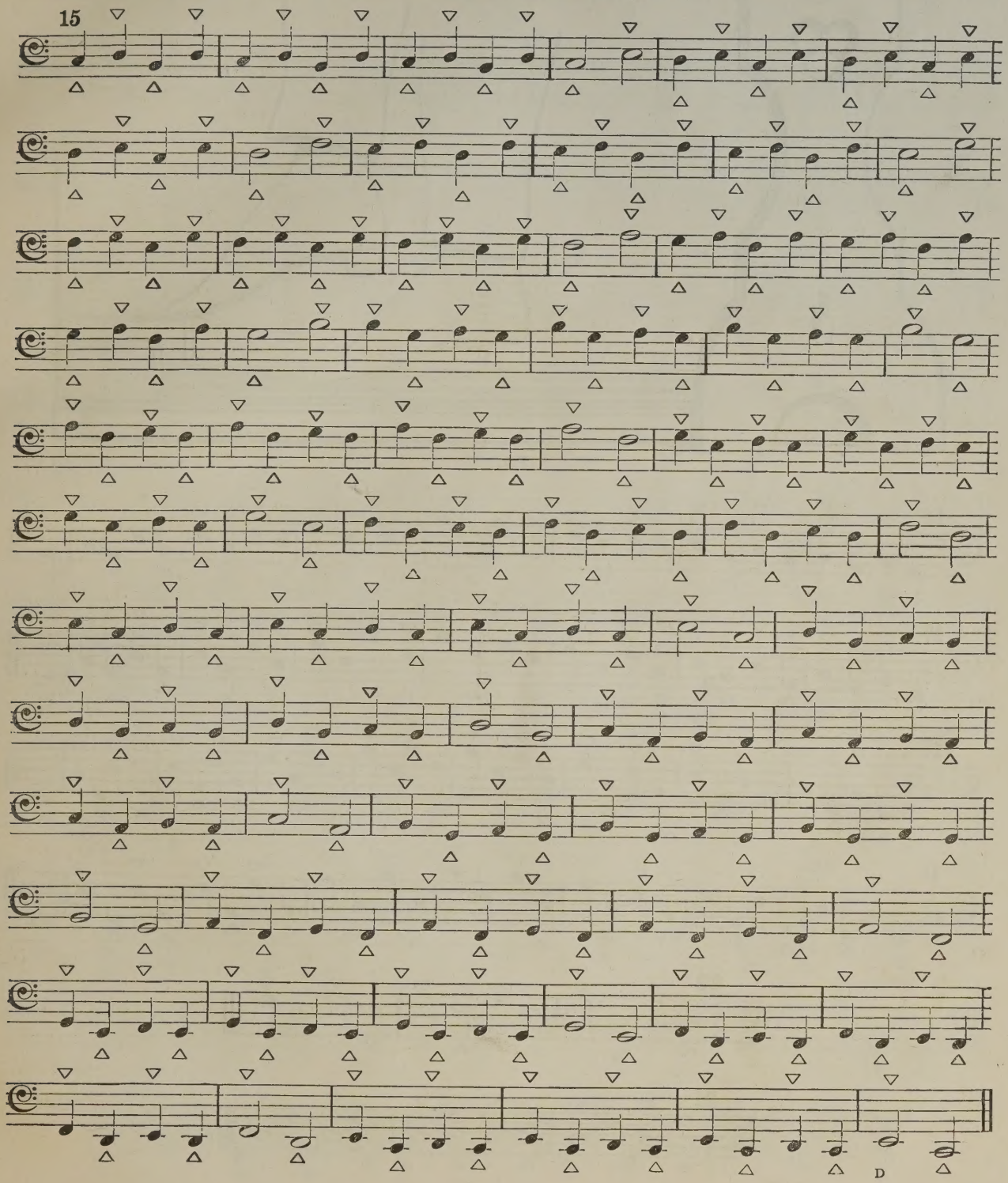


80. The position of the toe on a sharp or flat pedal-key is shown in the following figure :—

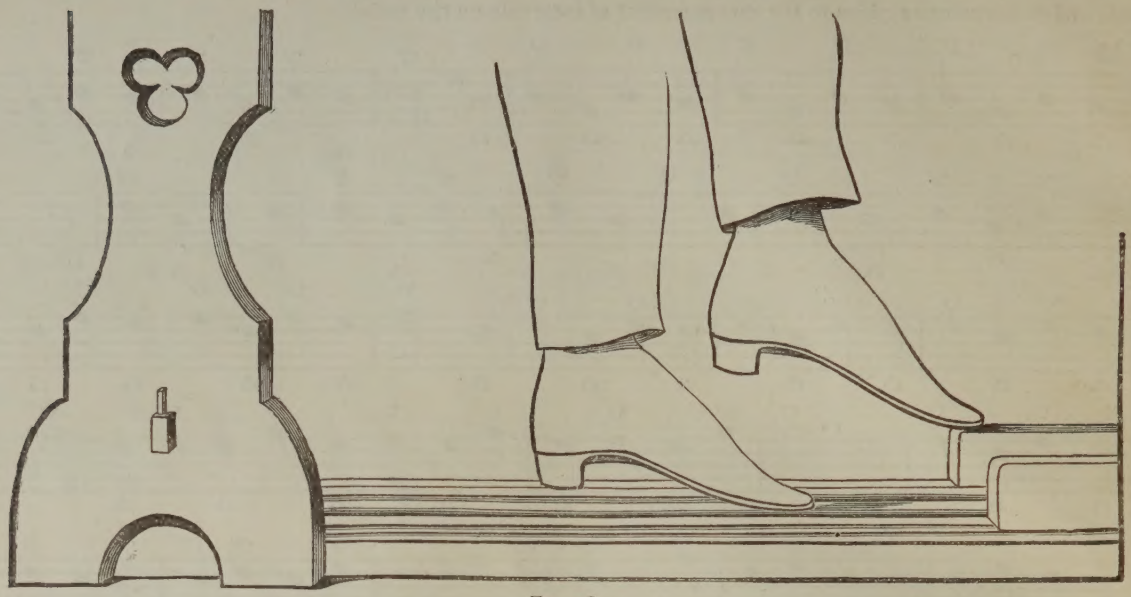
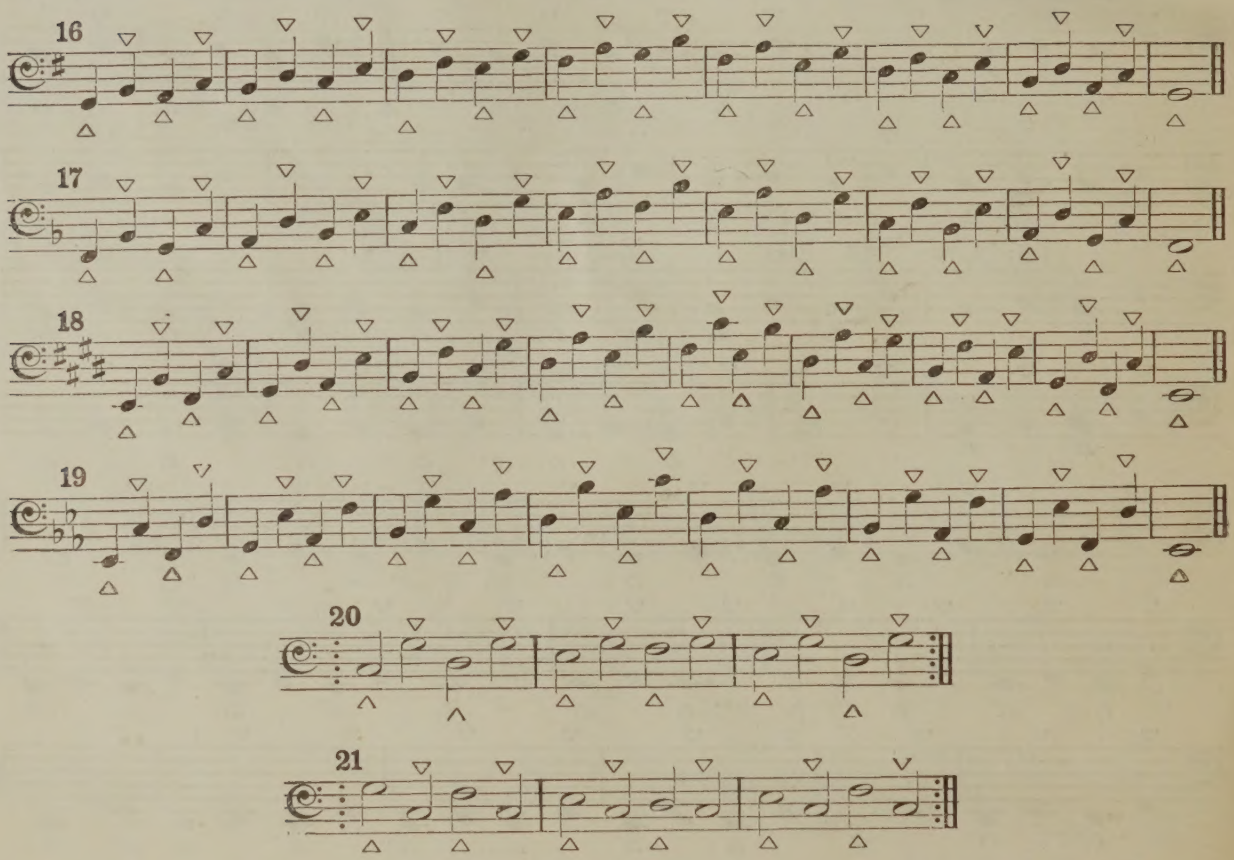
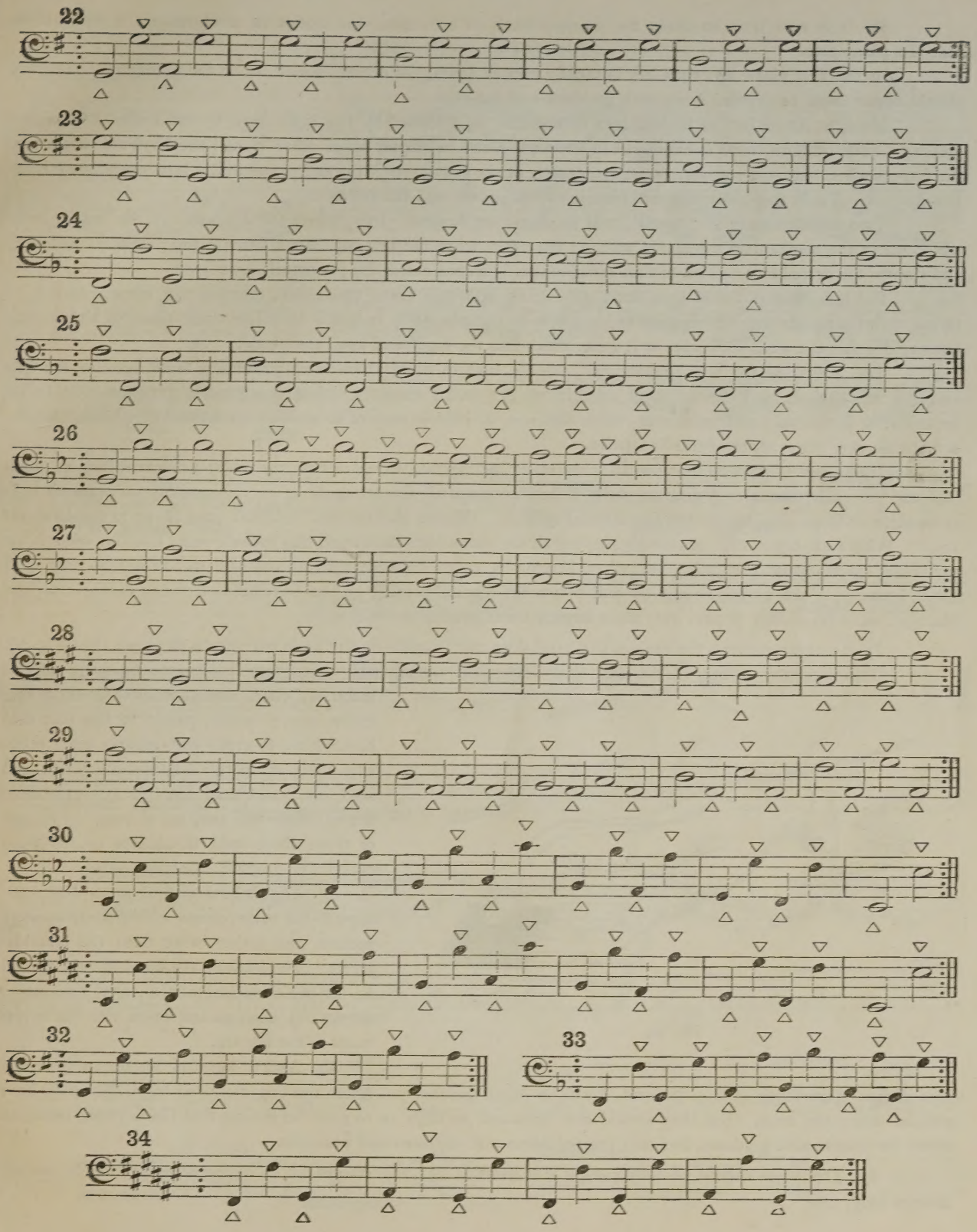


FIG. 38.

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81. It is now time to study the manual-touch of an organ, and notice in what respect it differs from that of a pianoforte.

In the first place, an organ-key is rapidly *pressed* down, not exactly *struck*, as on the pianoforte. The key should nevertheless be pressed down with firmness and decision.

Next, no alteration as to loudness or softness is produced by the force used by the finger. In organ-playing a quite uniform touch is employed in *forte* and *piano* passages, or, in other words, the keys are touched by the fingers when only one soft stop is drawn, *exactly in the manner as if the full power* of the instrument were to be brought out. To do this habitually will require constant care and attention.

Two different sorts of "touch" will be found on organs. One, when the *key itself* is the actual lever which works the mechanism connected with it; the other, when the key only lifts a valve in the pneumatic bellows, and throws the actual leverage on to that contrivance. (Hence called the pneumatic *lever*.)

But the object of the player, when playing on either of these two kinds, remains the same, namely, to throw open the pallets in true response to his finger as regards *time*, and also to throw them open so thoroughly and rapidly that the wind shall not, as it were, *sneak* into the pipes and spoil their tone.

The former of the above "touches," namely, that in which there is *no* pneumatic lever between the key and the mechanism, will be found to vary in weight to an extent which gives great annoyance even to an experienced performer; and, moreover, when one row of keys is *coupled* to another an almost new kind of touch, sometimes very heavy, is temporarily formed.

It frequently happens that (on an instrument having two, three, or four manuals) a different kind of touch is found on each manual. A good organist, if he nas to use all the manuals in turn, insensibly plays on *all* with the weight or force required for the *heaviest one of them*. Hence the saying: "Adjust your touch to the heaviest row." Where an organist is constantly playing on the same instrument and has become quite familiar with it, he can afford to disregard this rule; but, when playing in public on a *strange* instrument it will be well to bear it in mind, because, if the player should try and play a rapid scale-passage on the heaviest (not being prepared for the change), he is very likely to pass over some keys without getting any sound.

82. In organ-playing the back of the hand does not lie quite so flat as in pianoforte-playing. See Fig. 39. This is partly owing to the fact that very often considerably more pressure has to be used, as, for instance, when playing full chords on a specially heavy touch; partly to the fact that hands have to cross and recross each other when playing on two different manuals; and also, one hand may have to go just below the other for the purpose of pressing in one of those clever and invaluable contrivances called "pneumatic combination pistons."

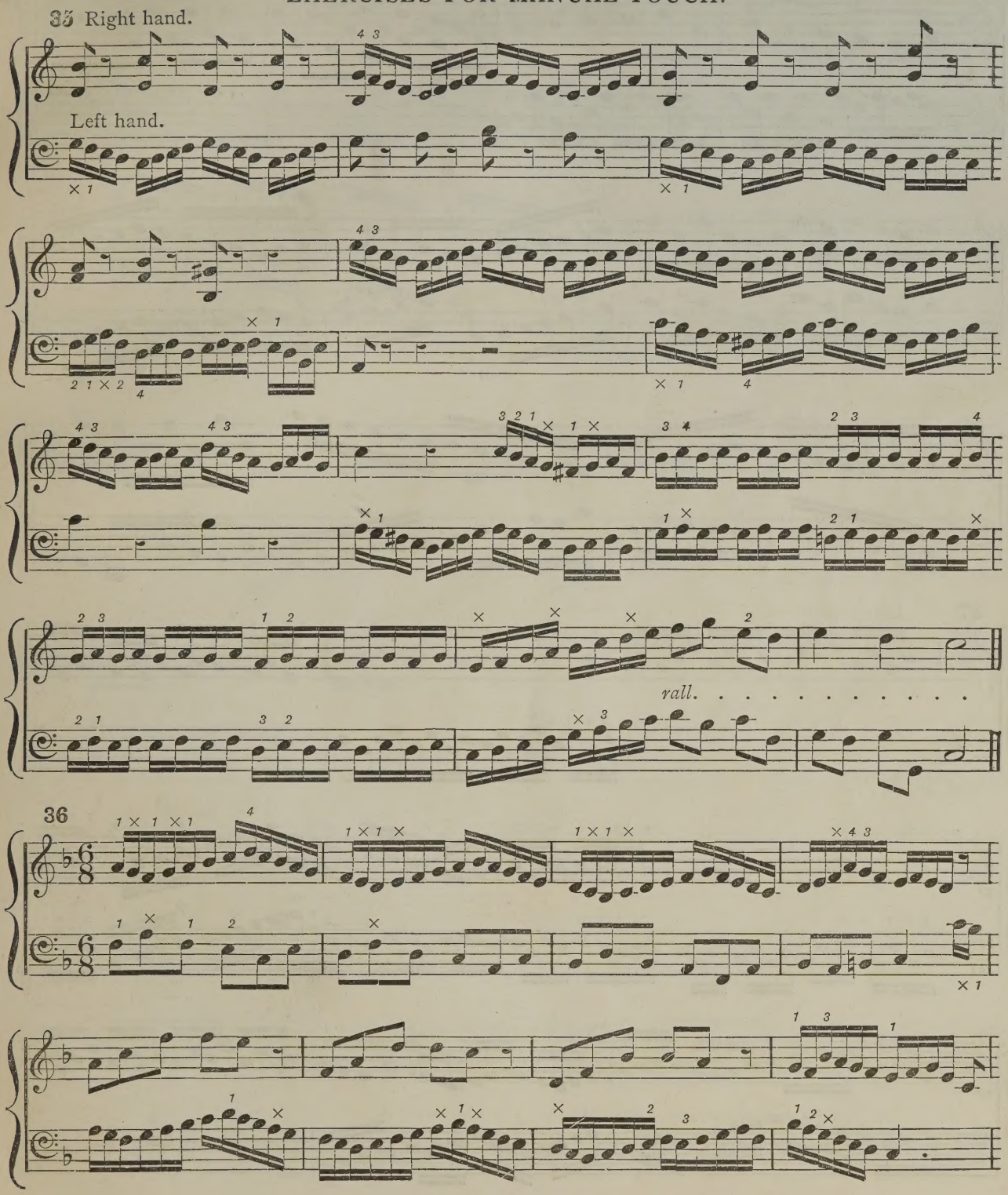
FIG. 39.

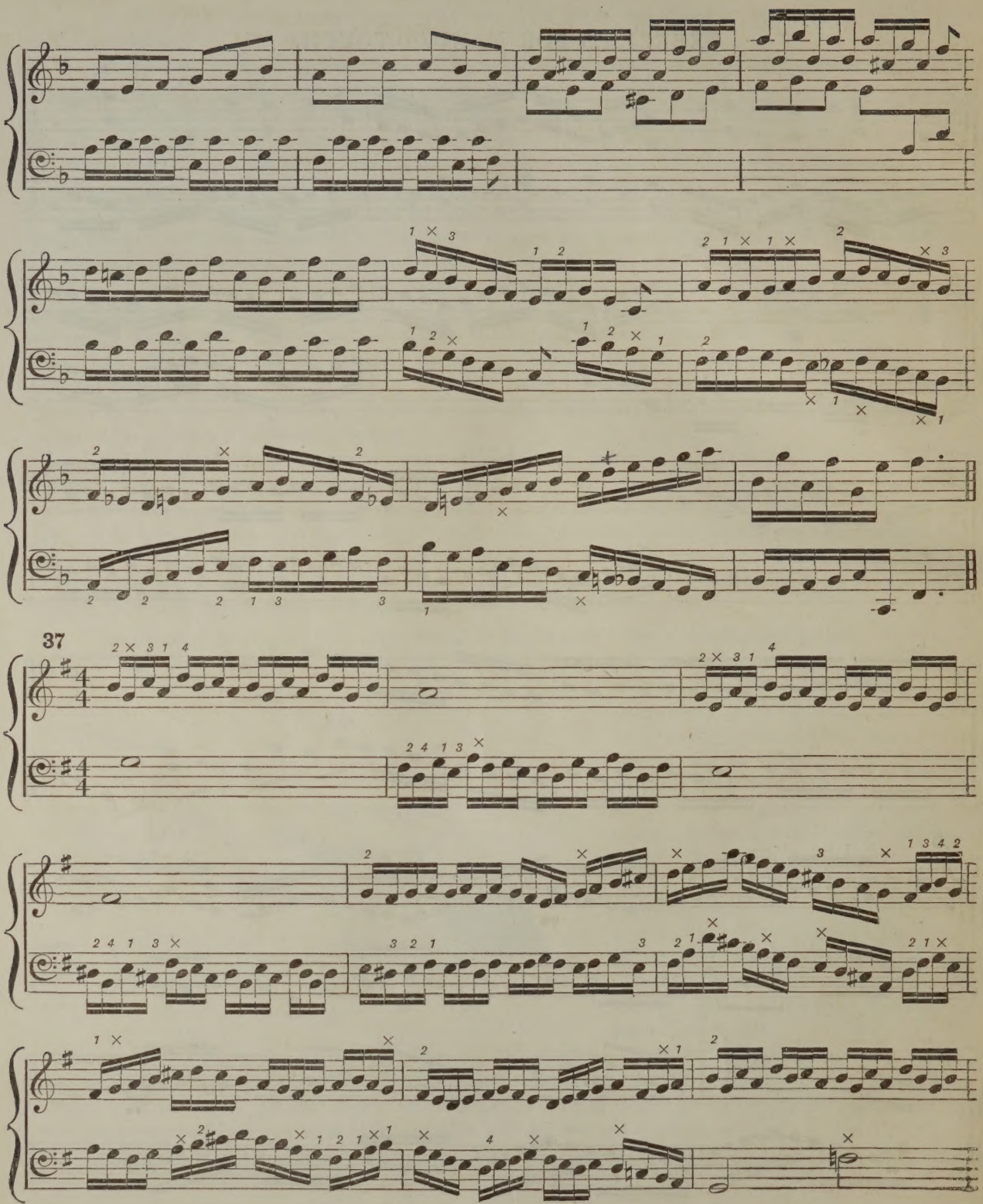
83. The fingers should press down the keys to the very bottom with a sharp *springy* motion, the action being from the knuckle-joints. The back of the hand should remain in its position, and not on any account be allowed to jump up and down with the movement of the fingers.

84. As the keys of an organ generally sink deeper than those of a pianoforte, it will be found necessary to raise the fingers rather high, *after* they have pressed down the keys. But they should not be raised so high as to give the feeling that the keys are being *hit* when the fingers *next* go down, but only *pressed down* with decision and firmness.

85. The pupil should be very careful not to stick out the elbows; it is never necessary to do so, and always ugly.

EXERCISES FOR MANUAL-TOUCH.

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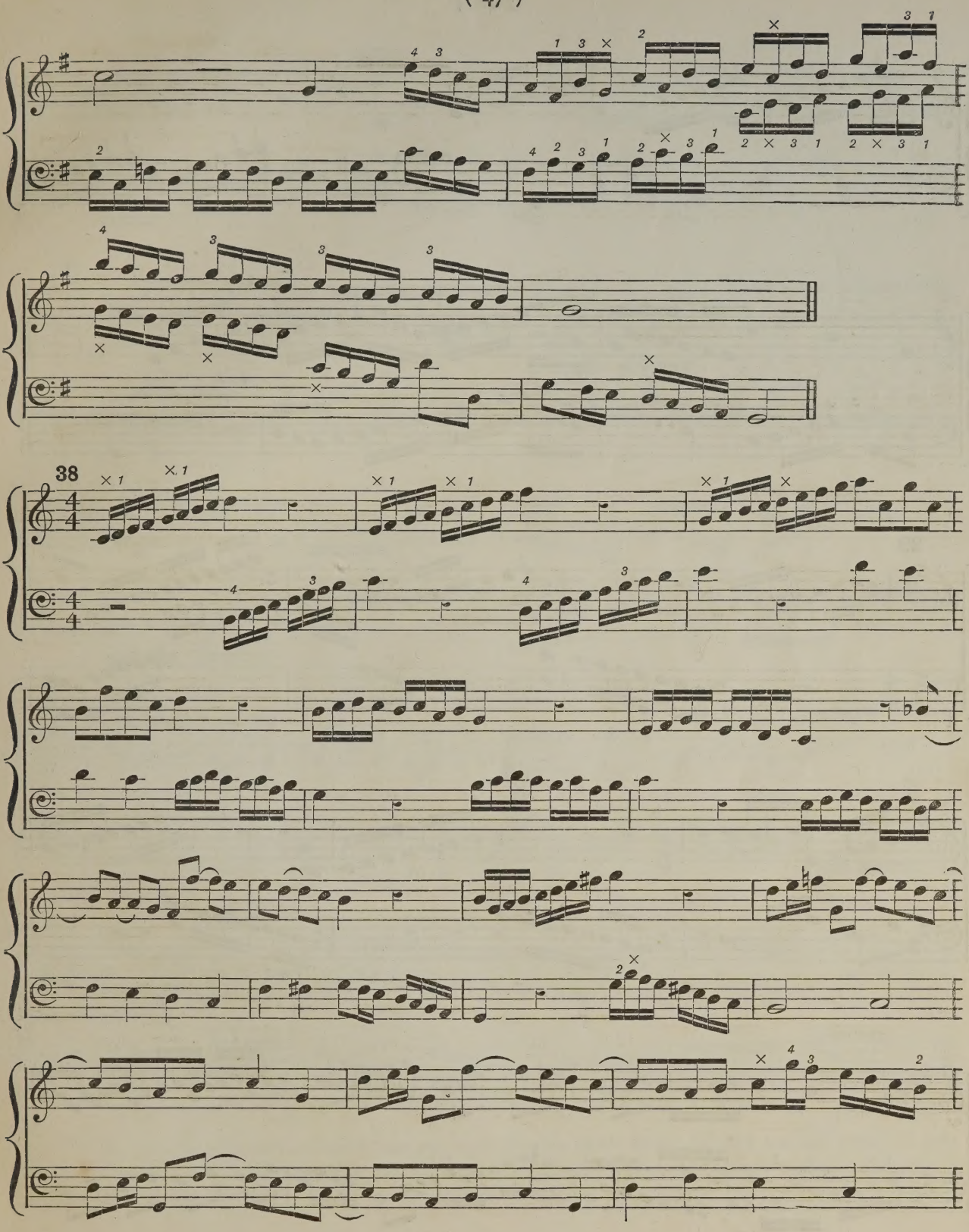
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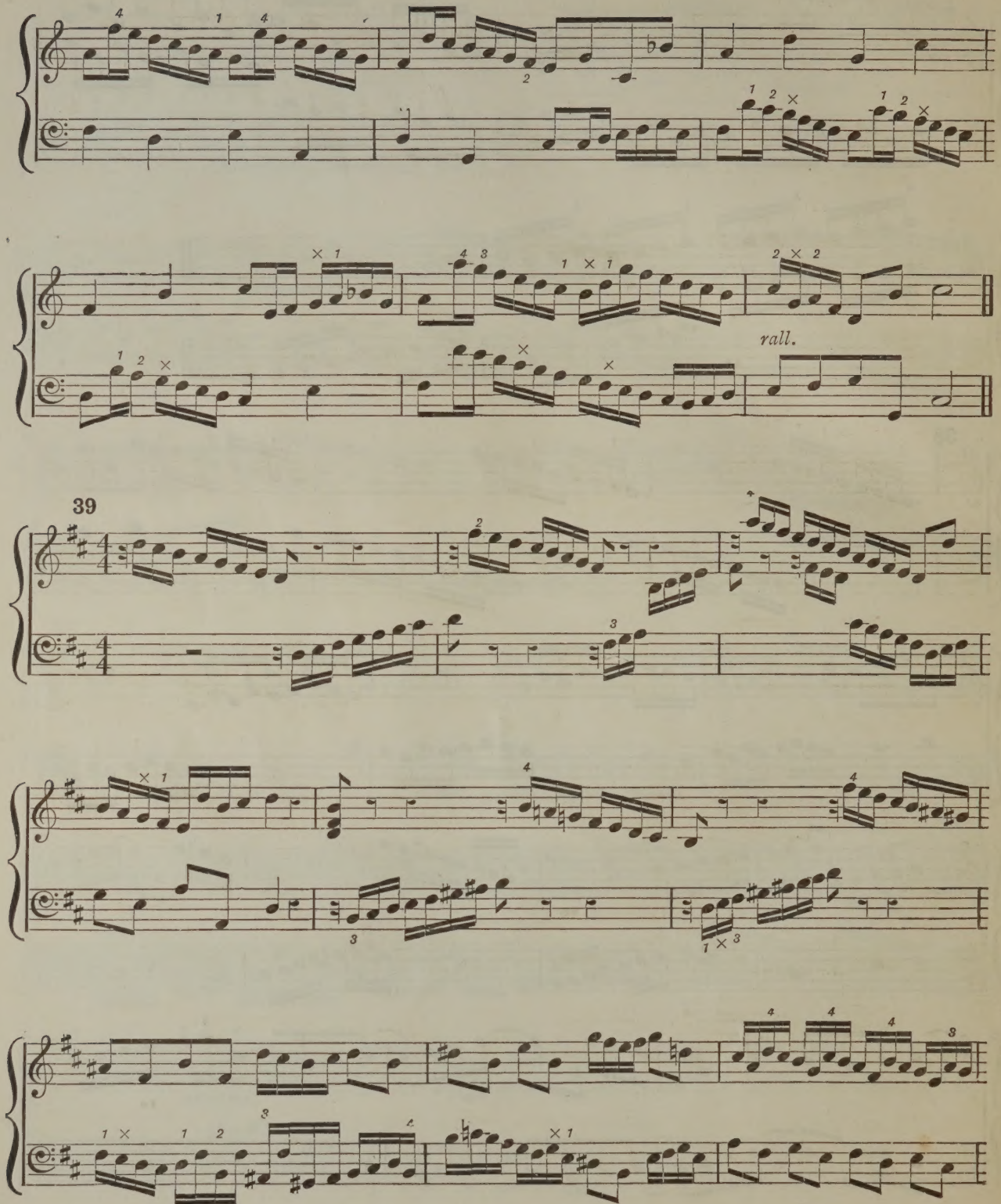
rall.
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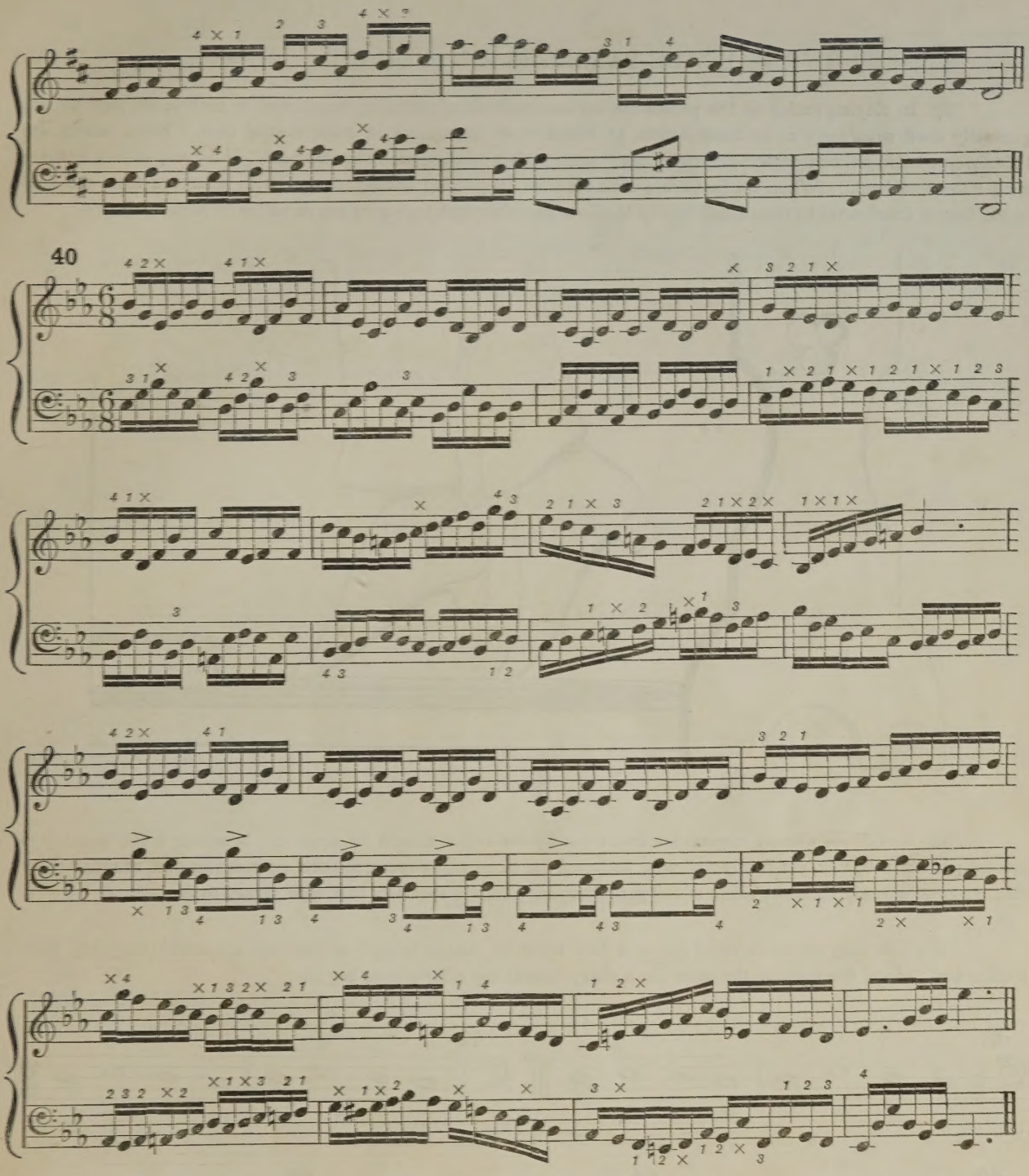


86. As it is of great importance that the same decisive touch should be used for both loud and soft passages, the student is recommended to play the preceding exercises alternately on loud and soft combinations and on different rows of keys.

SCALE-PASSAGES ON PEDALS.

87. In playing scales on the pedals the various methods of pedalling mentioned in section 70, page 32, are generally used separately or in combination as found most convenient in each special case. Some scales are therefore pedalled entirely with "alternate toes," some with a mixture of "toe and heel" and toes, others entirely with "toe and heel." When the feet cross each other as in playing scale-passages with alternate toes, the heel of the foot in front must be raised sufficiently to allow the other foot a clear space in which to pass it, thus:—

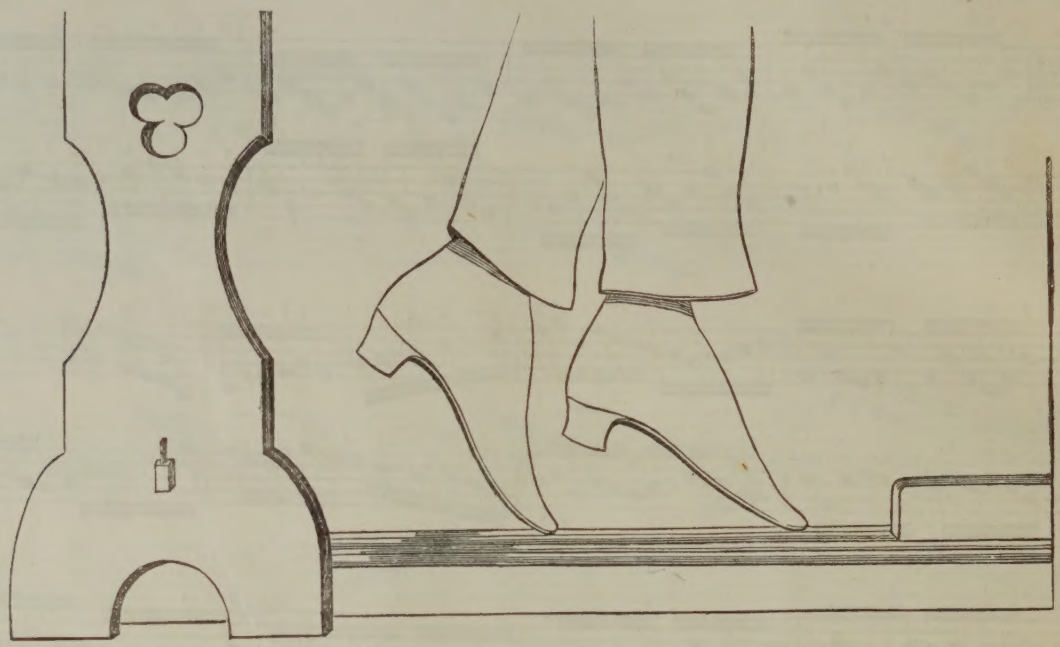
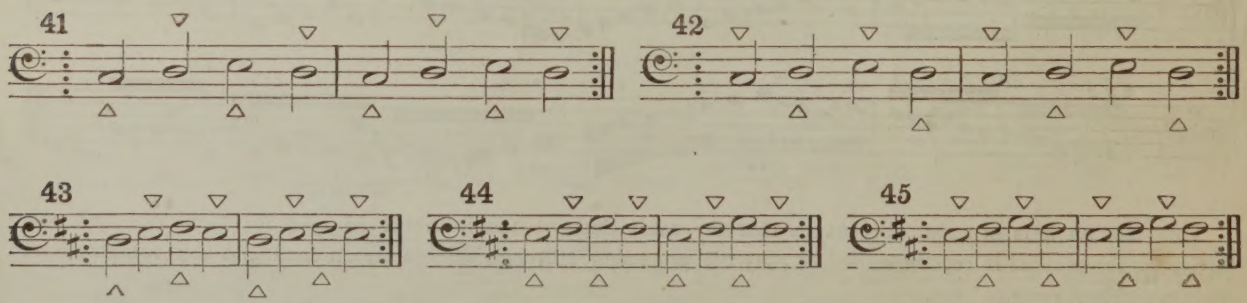


FIG. 40.

88. It is of the utmost importance that a good *pedal-touch* should be acquired, because, if the pedal-keys are not put down lightly, yet firmly and with decision, the large pipes speak in such an irregular and unsatisfactory manner as to entirely spoil the effect of the performance. This is specially true with regard to reed-stops.

The following exercises show how one foot must be passed behind another for a natural (long) key after a short key; round the front of the other for a sharp (short) key after a long key:—



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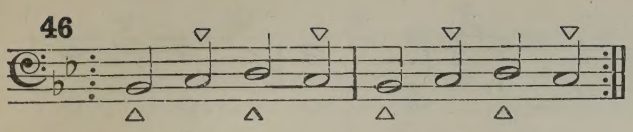

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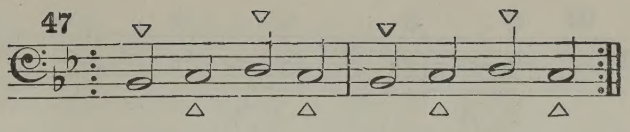

SCALE PASSAGES FOR ALTERNATE TOES.

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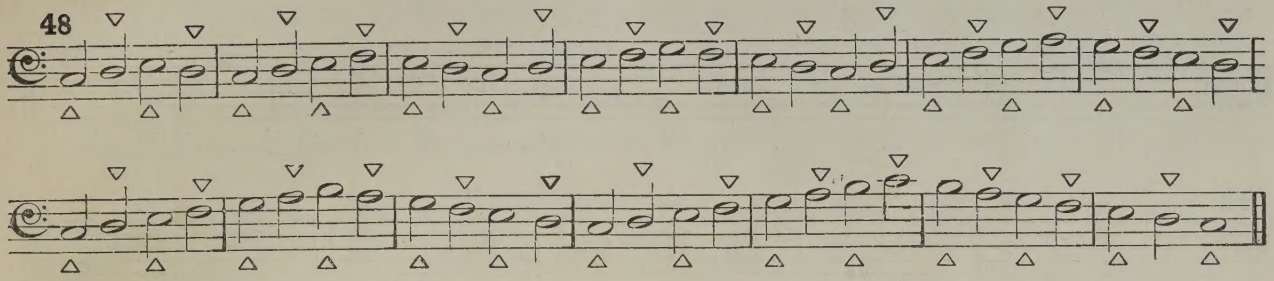

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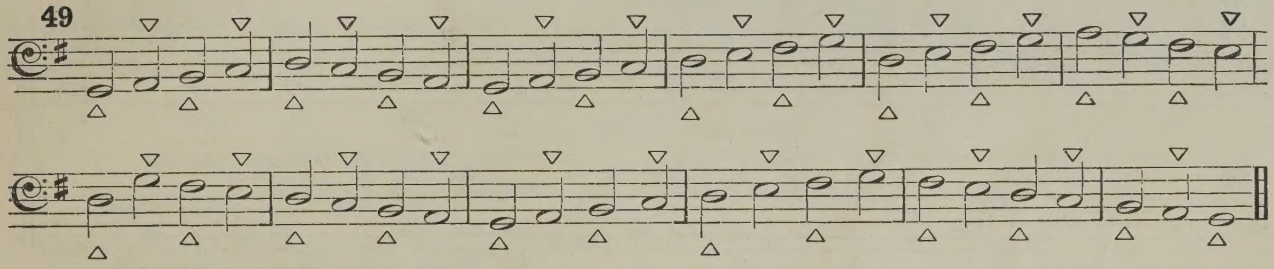

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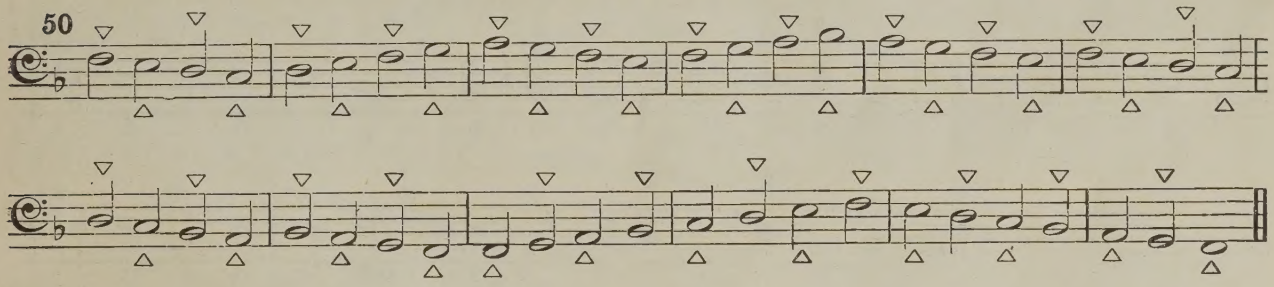

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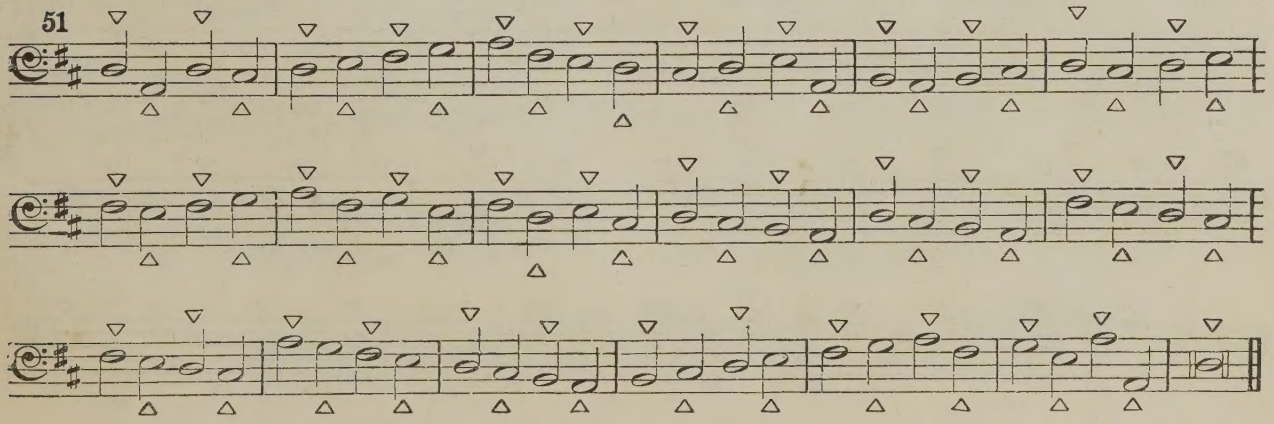

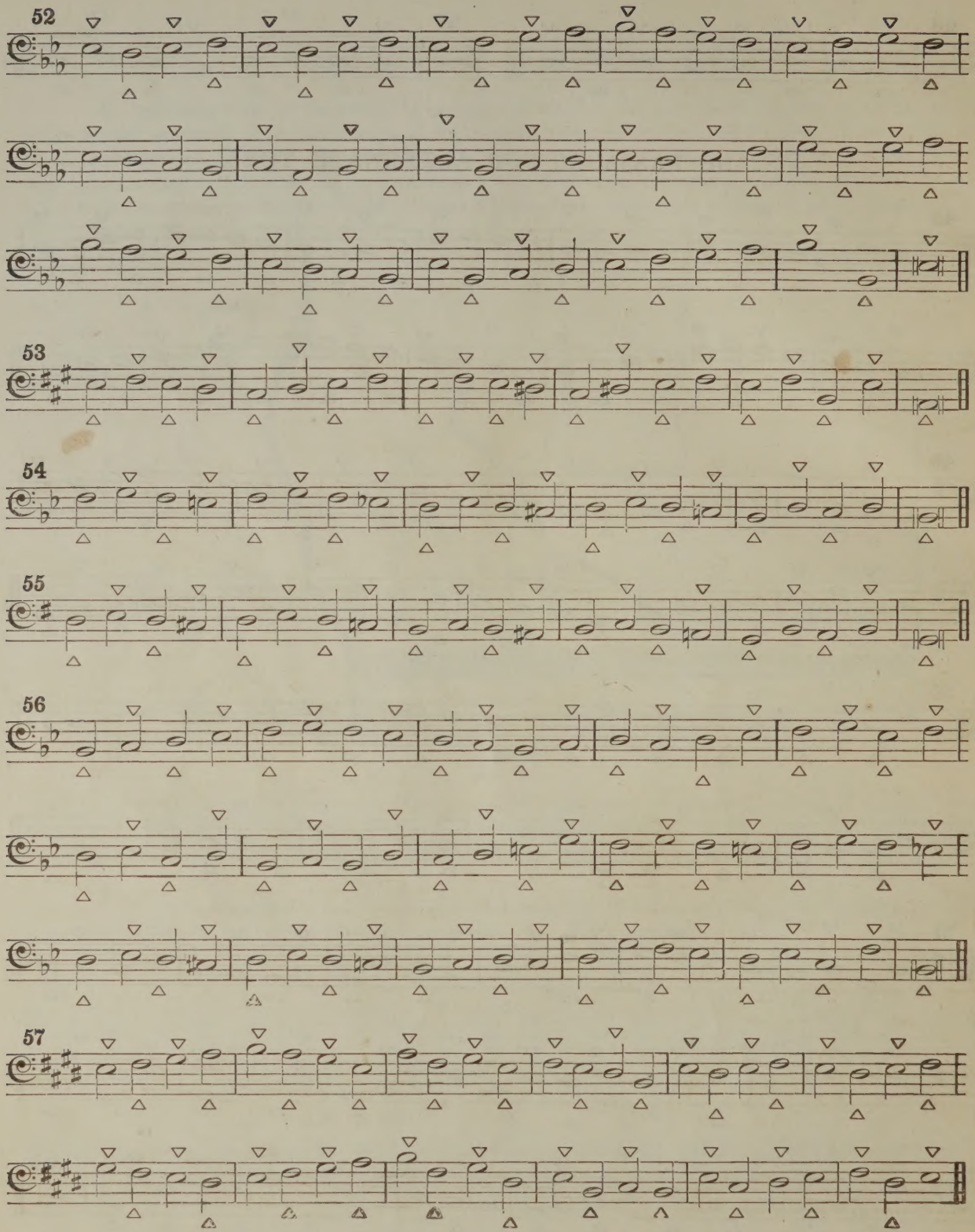
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INDEPENDENCE OF HANDS.

89. As the hands more frequently are *crossed* in playing the organ than the pianoforte, special attention must be directed to the exercises for teaching independent movement of the hands.

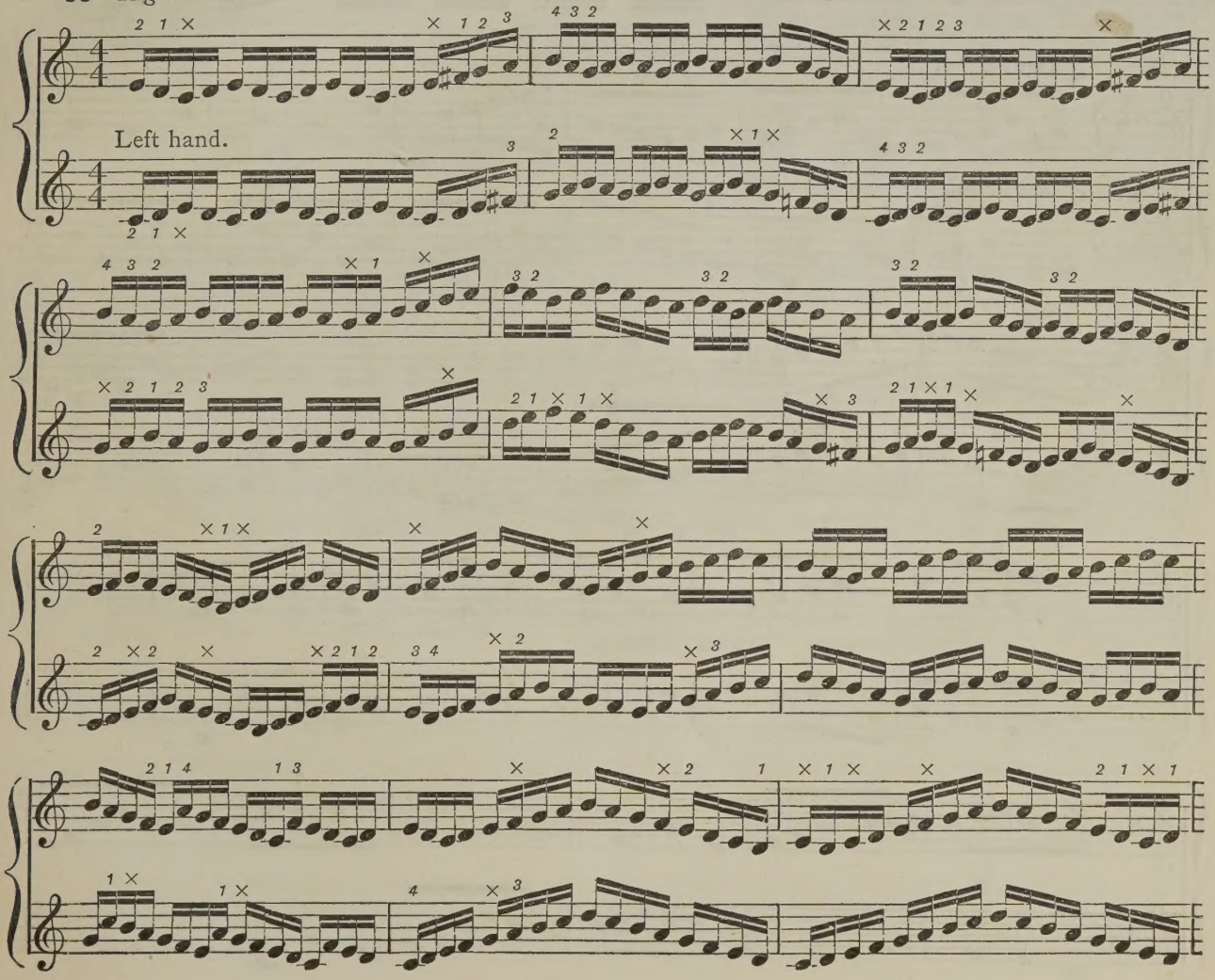
90. On the organ—that is to say, an organ with two or more manuals—many beautiful effects can be produced by using the hands on two different manuals having tones strongly contrasted in *quality*, though equally balanced as possible with regard to *quantity* of sound. Every time passages are then made to cross each other, both parts remain pure and distinct.

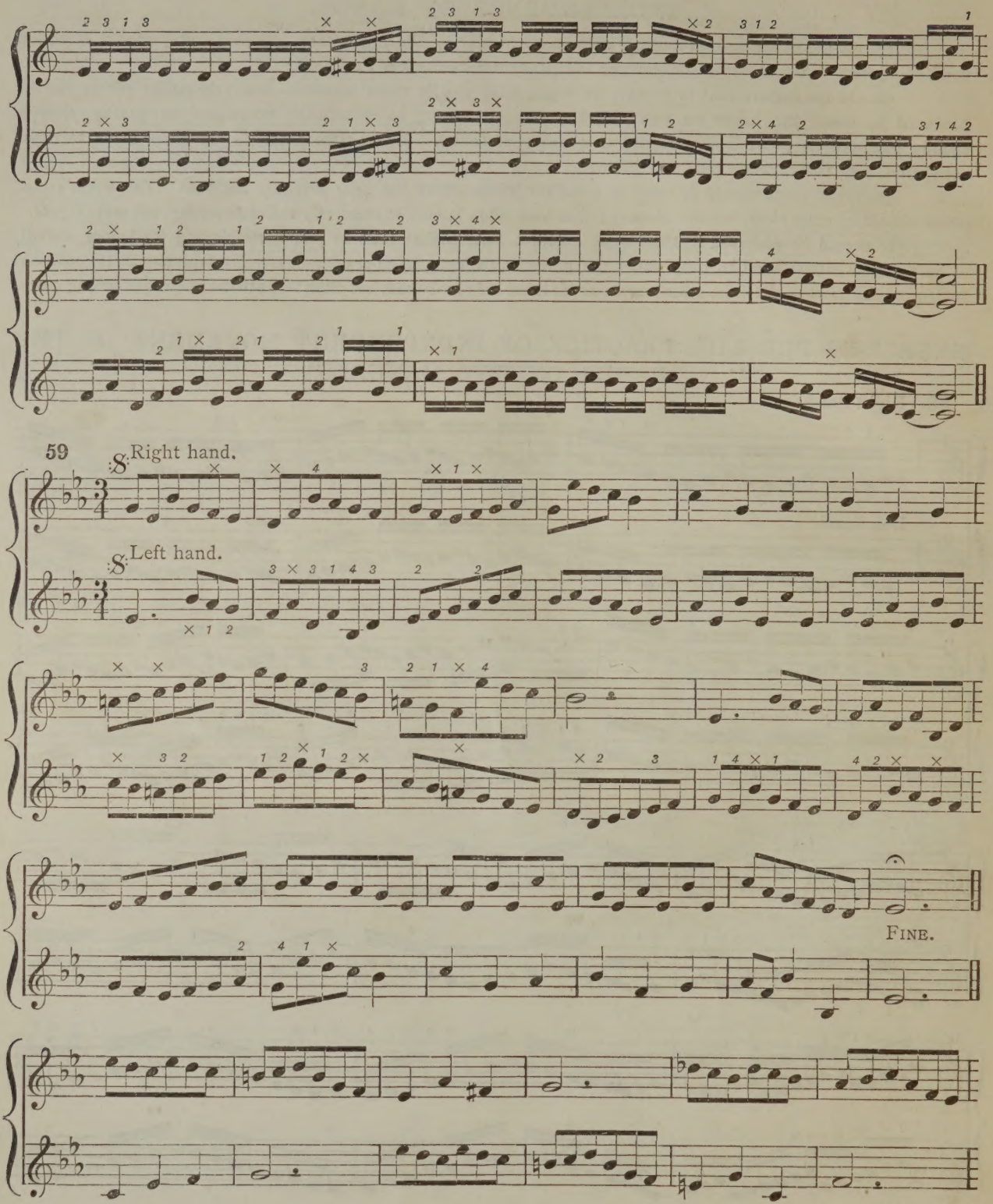
91. Great pains should be taken to make the hands strike the keys *precisely* together. The sounds produced should be quite *clear*, but not *staccato;* free from what is very expressively called *smearing*, yet quite *legato*.

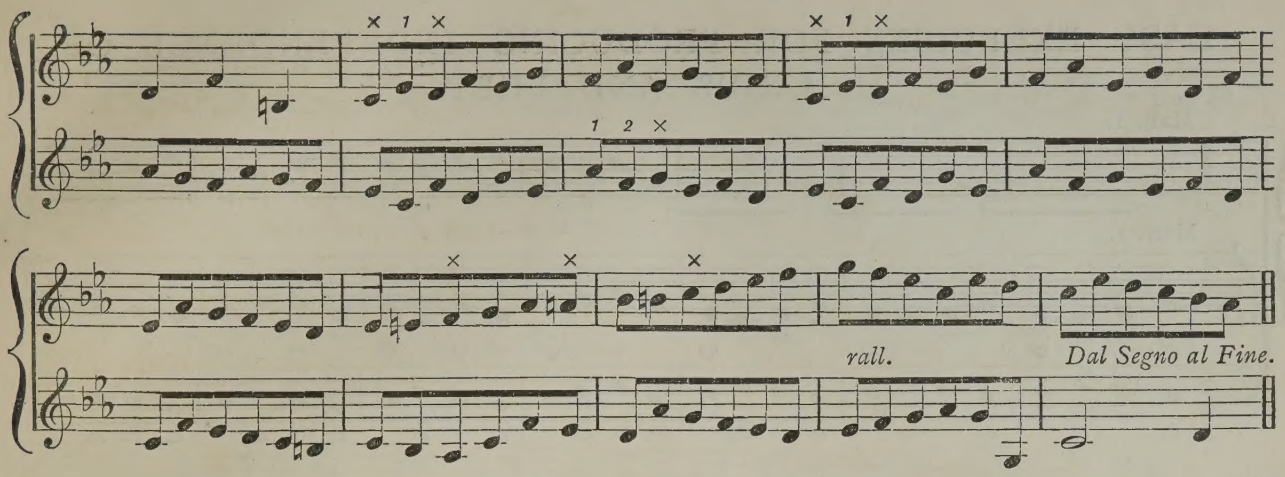
It should be observed that the wrist is held a little higher than in pianoforte-playing (as before stated), so as to allow either hand to pass under the other, as the case may be, without any displacement of its position. A jump of one hand to allow the other to pass under it not only looks bad, but often leads to the playing of wrong notes.

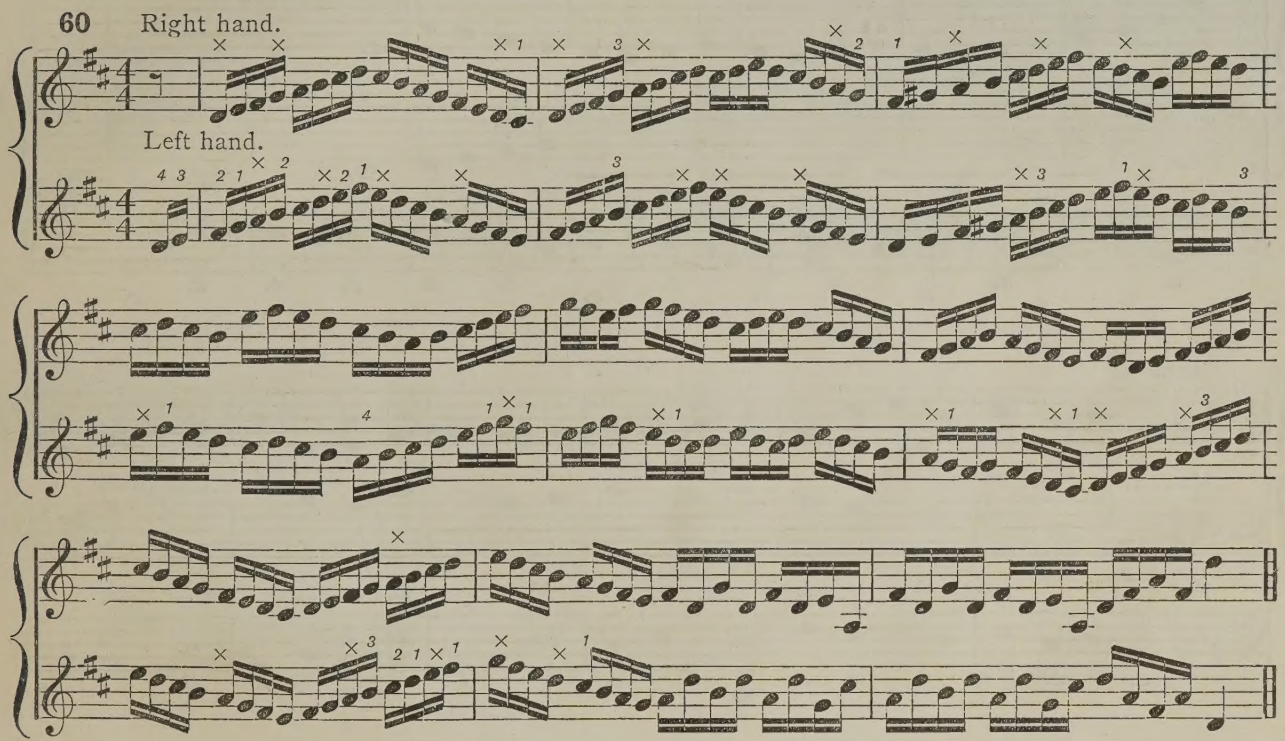
EXERCISES FOR THE PRACTICE OF INDEPENDENT MOVEMENT OF THE HANDS, ON TWO MANUALS.

58 Right hand.




59
Right hand.
Left hand.
FINE.





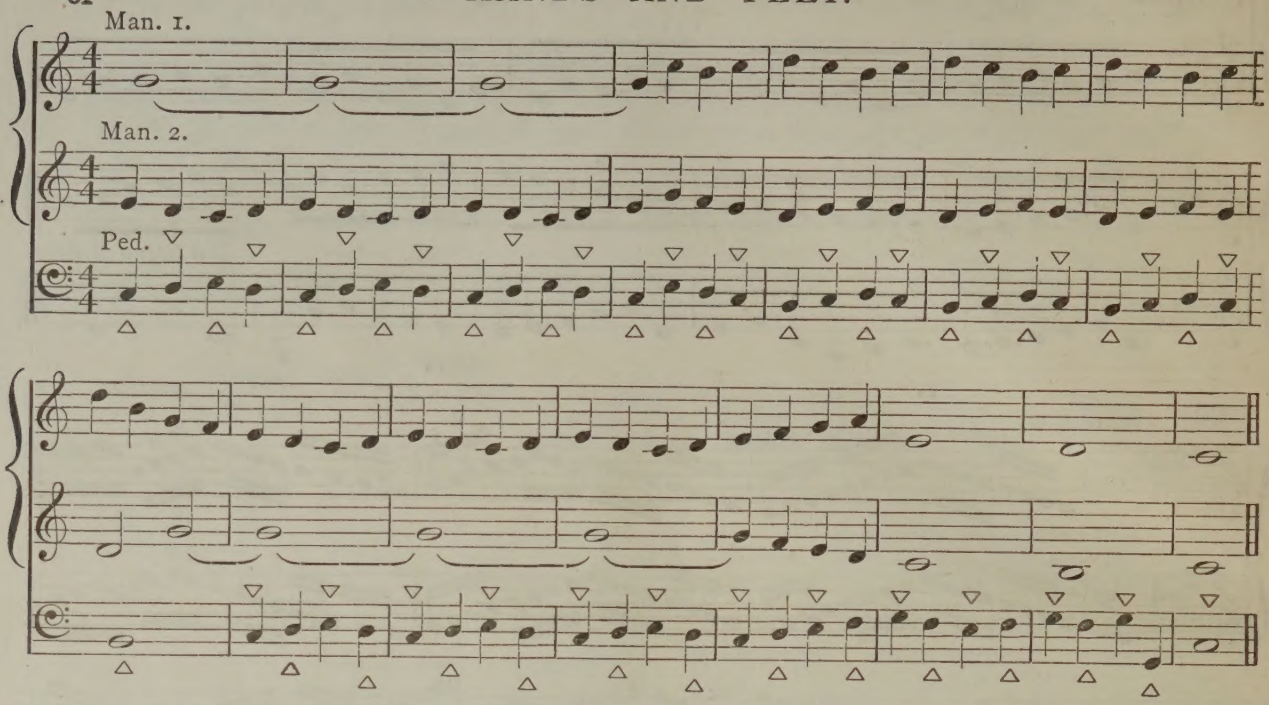
92. The pupil may now begin to play in three parts, one part being assigned to each hand, another to the feet. Of course this sort of playing will at first very much tax his attention and perhaps *patience*. But as it brings into prominence the essential characteristics of organ-playing, he will find his labour amply repaid by the ease with which he will at a later period unravel fugal knots of no small complication.

93. Special attention will be necessary to the next set of exercises, designed to give independence of action to both hands and feet.

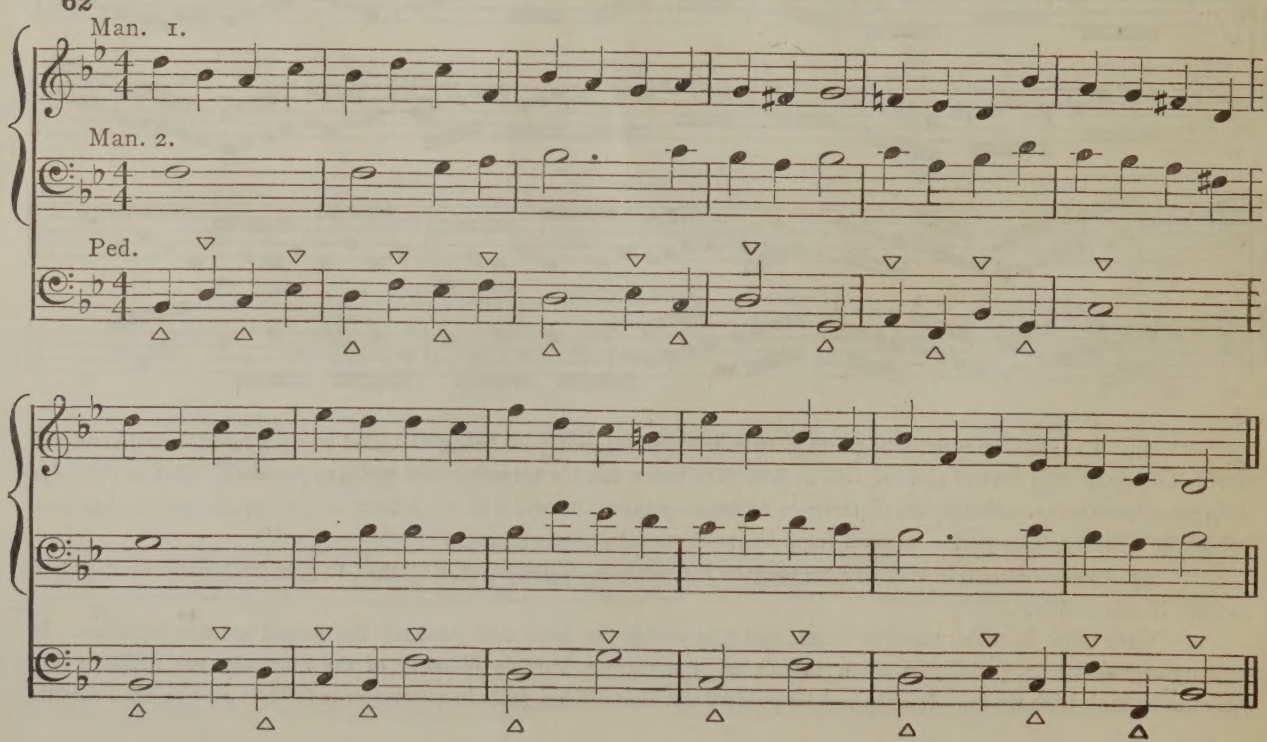
Care must be taken that the finger and foot strike the keys and produce the sound exactly *together*. In bad organ-playing the pedal part often sounds as if it were a humble follower of the manuals, too diffident and nervous to rank with them. It need not be pointed out that such a fault in execution is fatal to all beautiful effects.

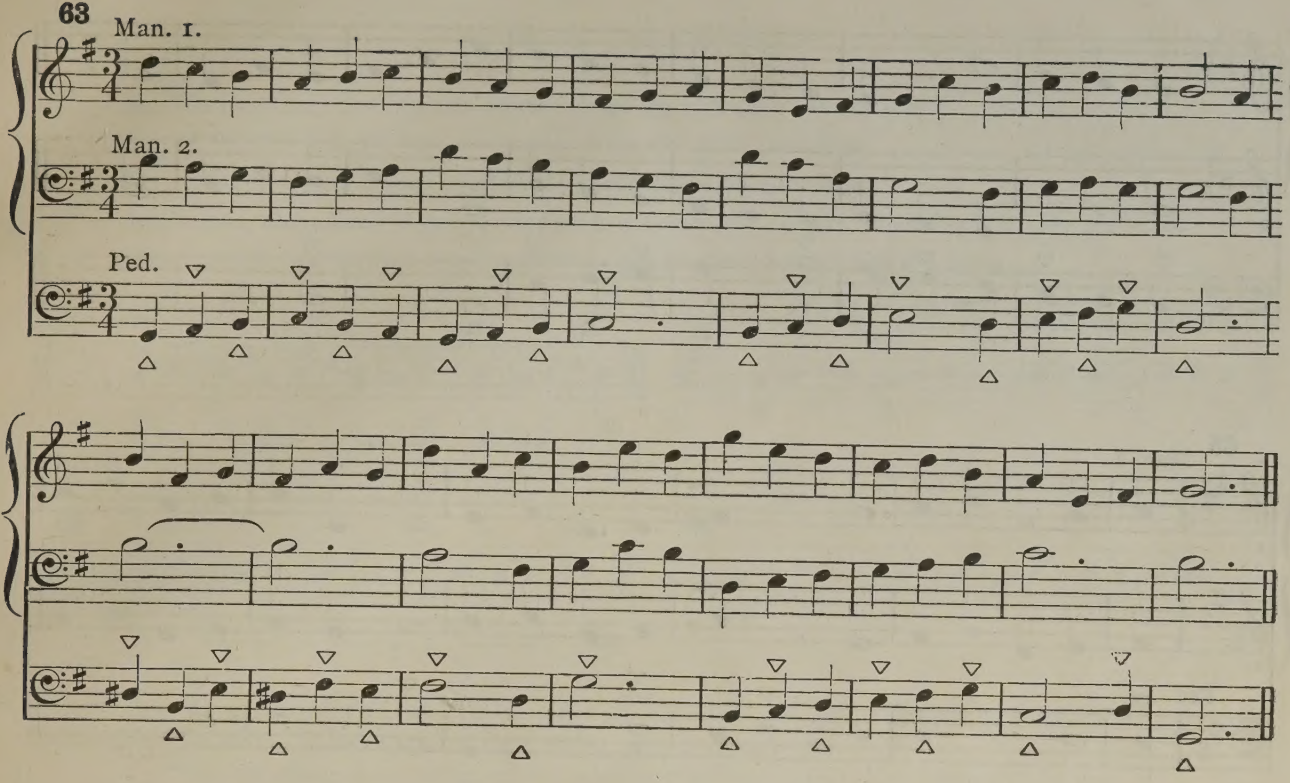
EASY EXERCISES FOR PRODUCING INDEPENDENCE OF HANDS AND FEET.

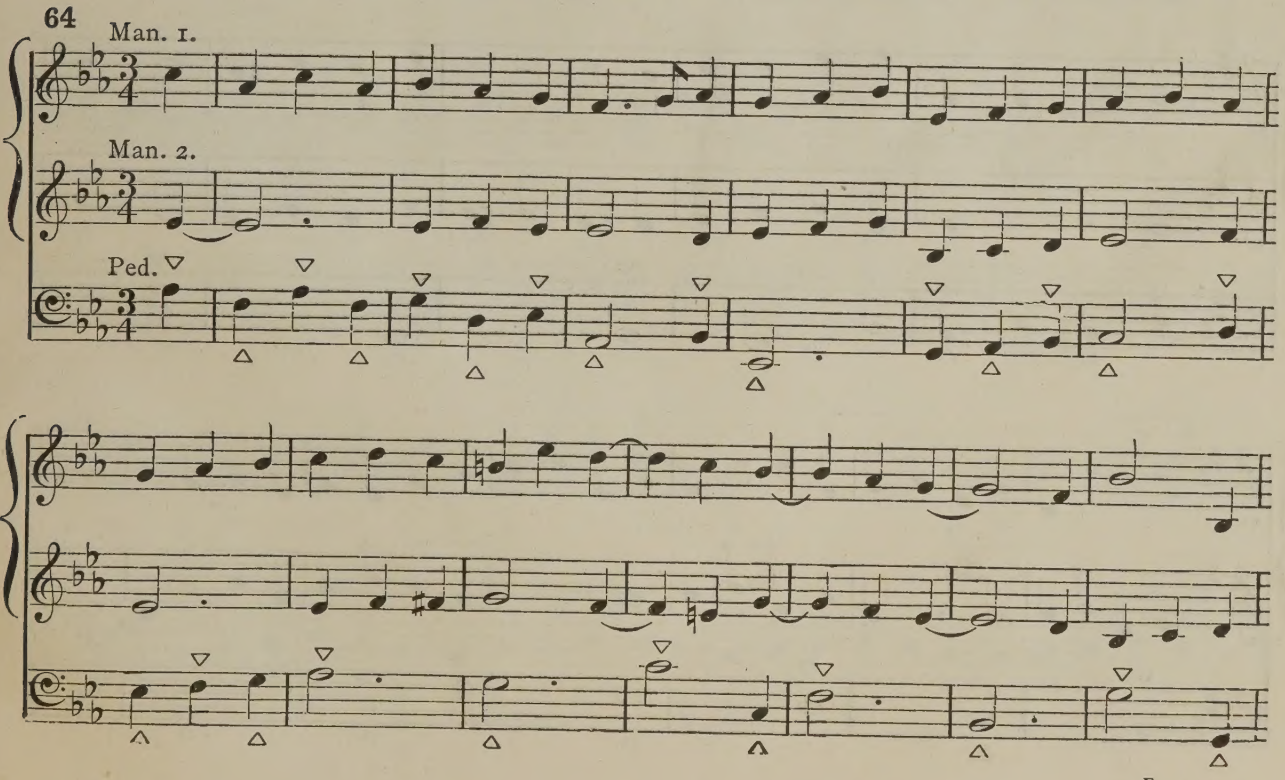
61

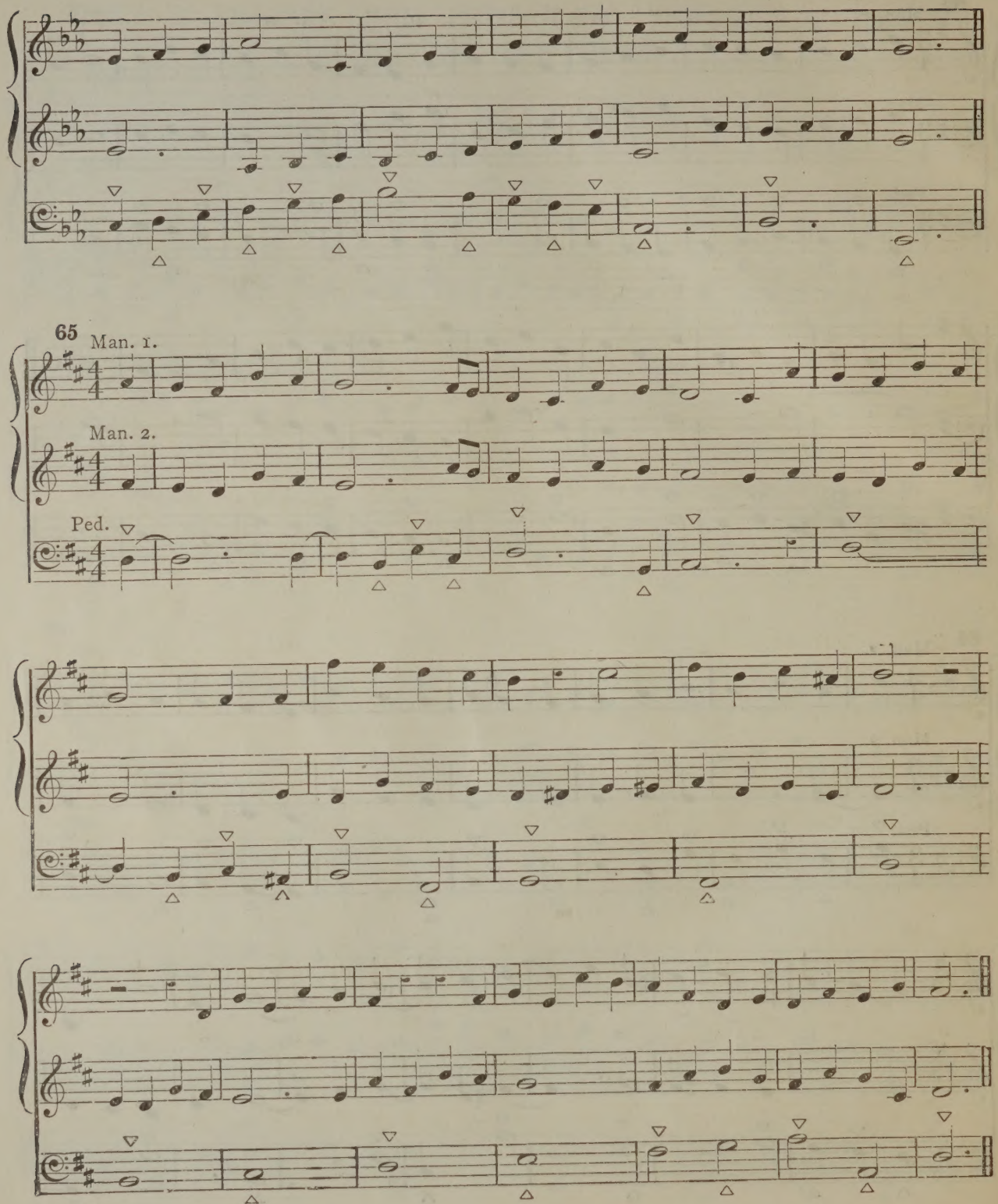


62




63
Man. 1.
Man. 2.
Ped.


64
Man. 1.
Man. 2.
Ped.


65
Man. 1.
Man. 2.
Ped.

TOE AND HEEL.

94. The pupil may now begin to practise pedalling with the "toe and heel."

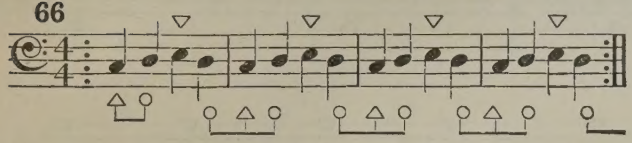
signifies that the heel is followed by the toe of the same foot.

signifies that the toe is followed by the heel of the same foot.

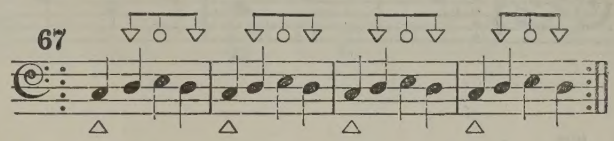
In all cases where these signs are attached to a continuous line, the same foot is to play the notes.

Signs for the right foot are over the notes ; signs for the left foot under the notes.

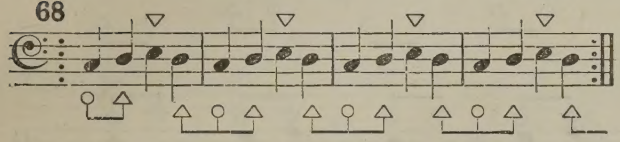
66



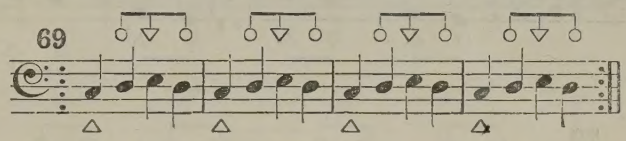
67



68



69

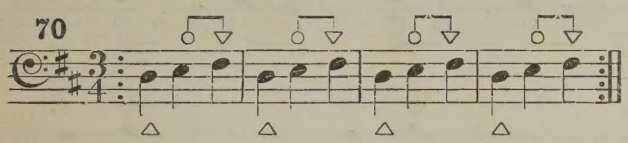


The above examples will at once give the student an idea of the many ways in which the same passage may often be pedalled. Sometimes all of them are equally smooth and good.

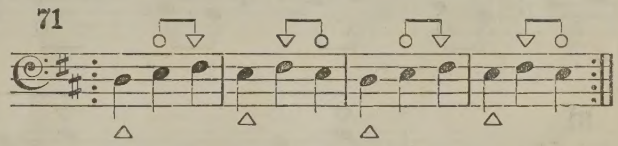
95. The next exercises will introduce the movement of toe and heel to and from a sharp key.

(Take great care that all the sounds are exactly equal in length, and smooth, though quite distinct.)

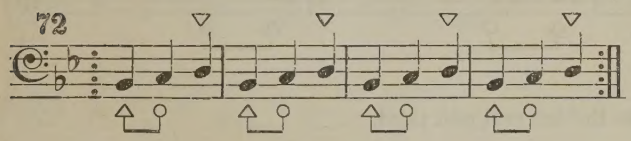
70



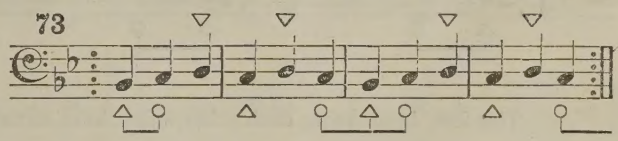
71



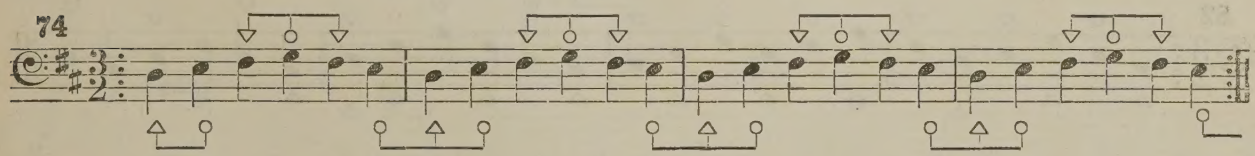
72



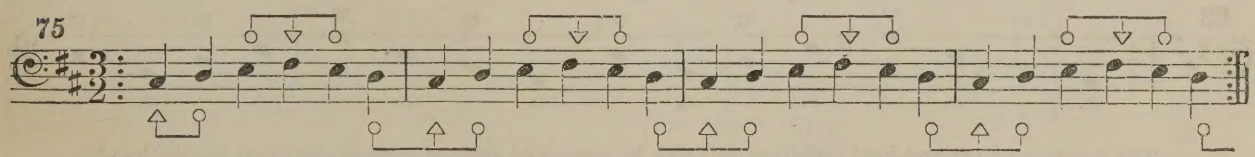
73

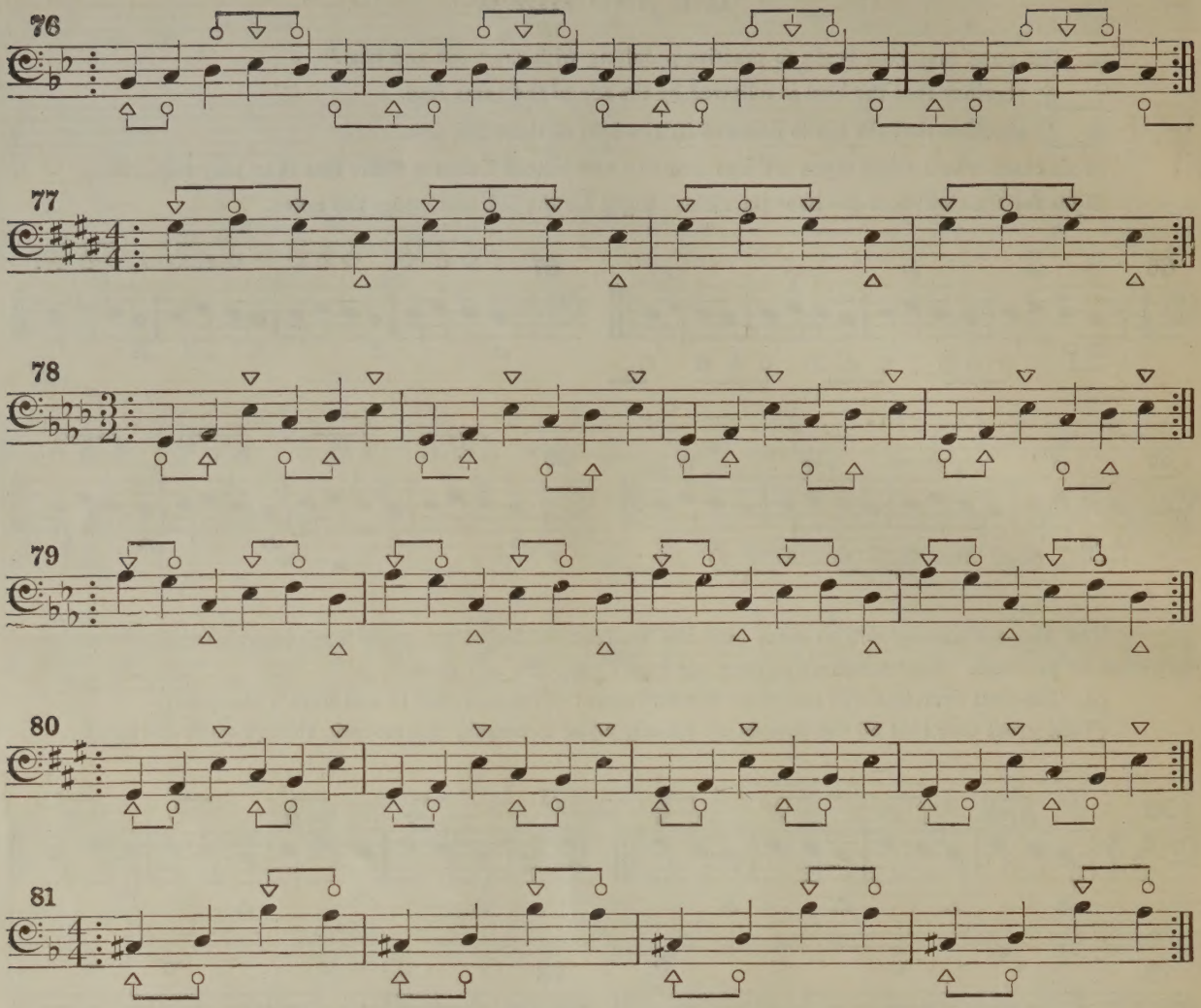


74

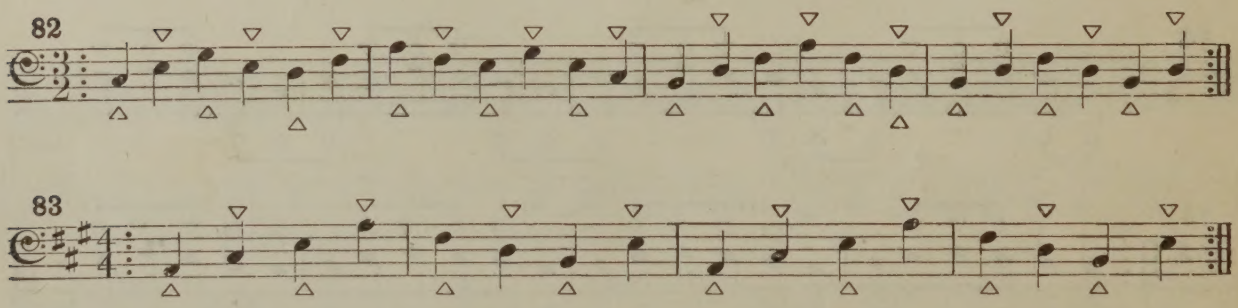


75





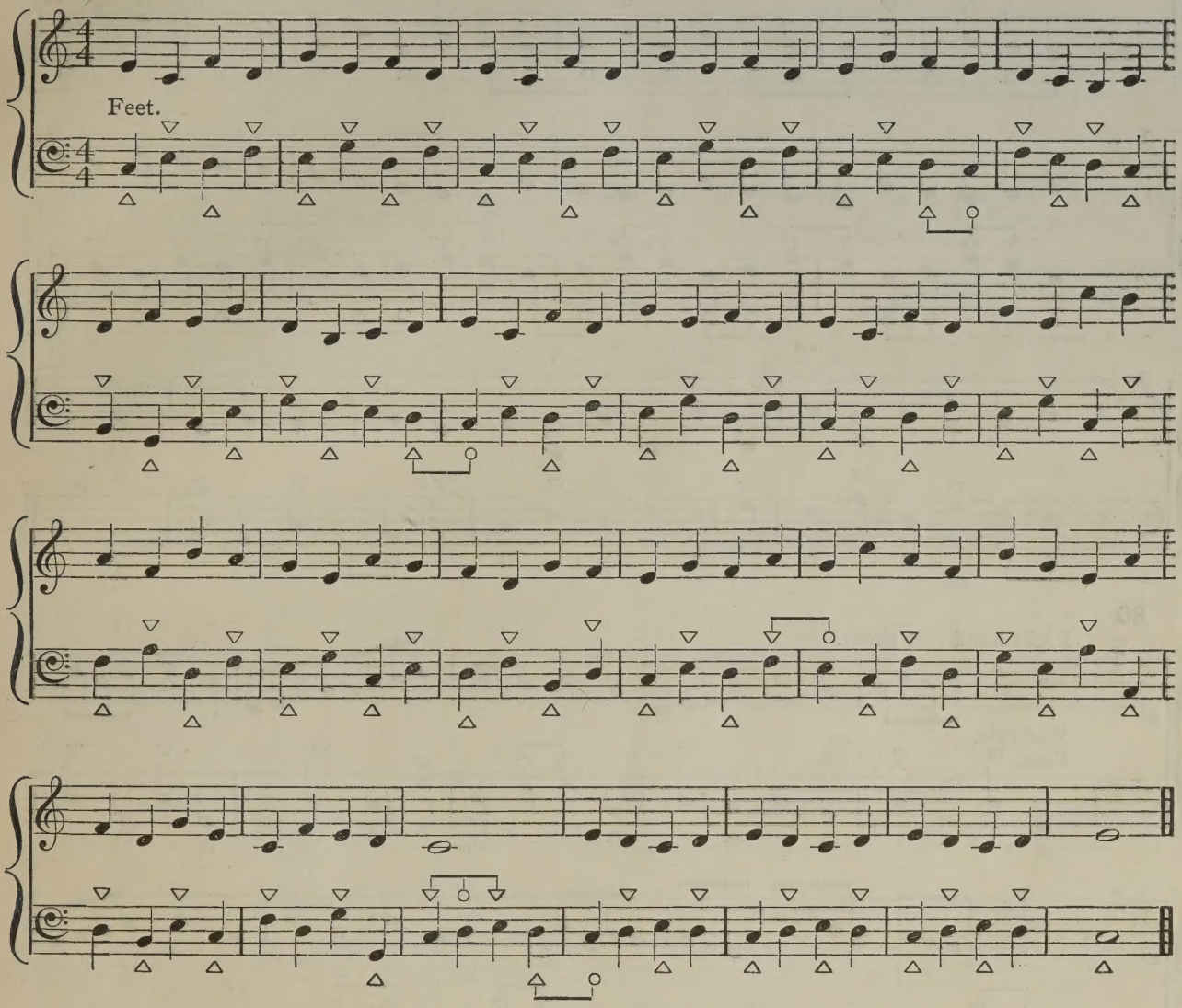
The feet, in crossing each other, often have to take the interval of a third.



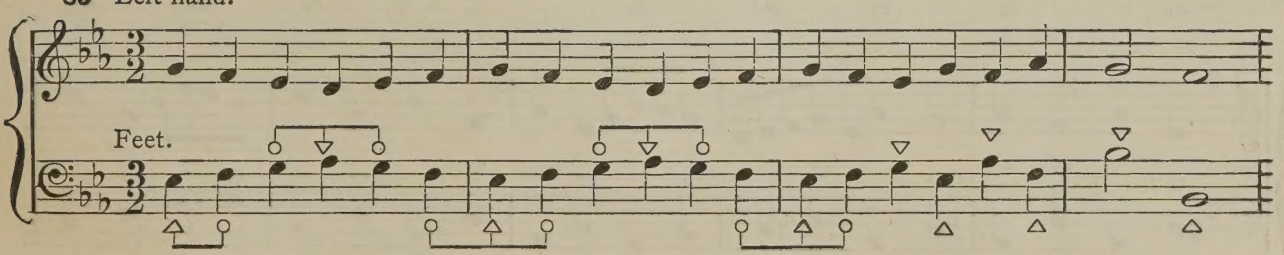
The practice of toe-and-heel pedalling will now be combined with an independent part for the hands.

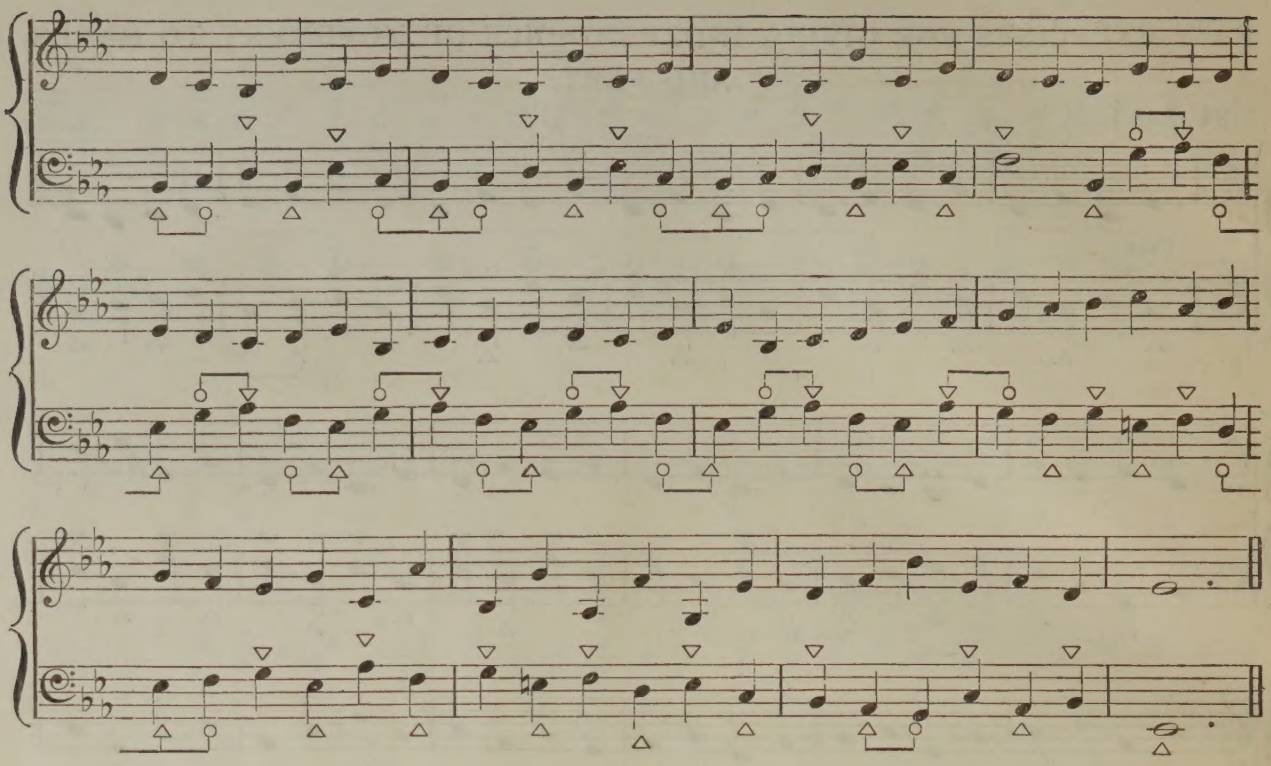
EASY EXERCISES FOR GIVING INDEPENDENCE OF MOVEMENT TO HANDS AND FEET.

84 Left hand.



85 Left hand.

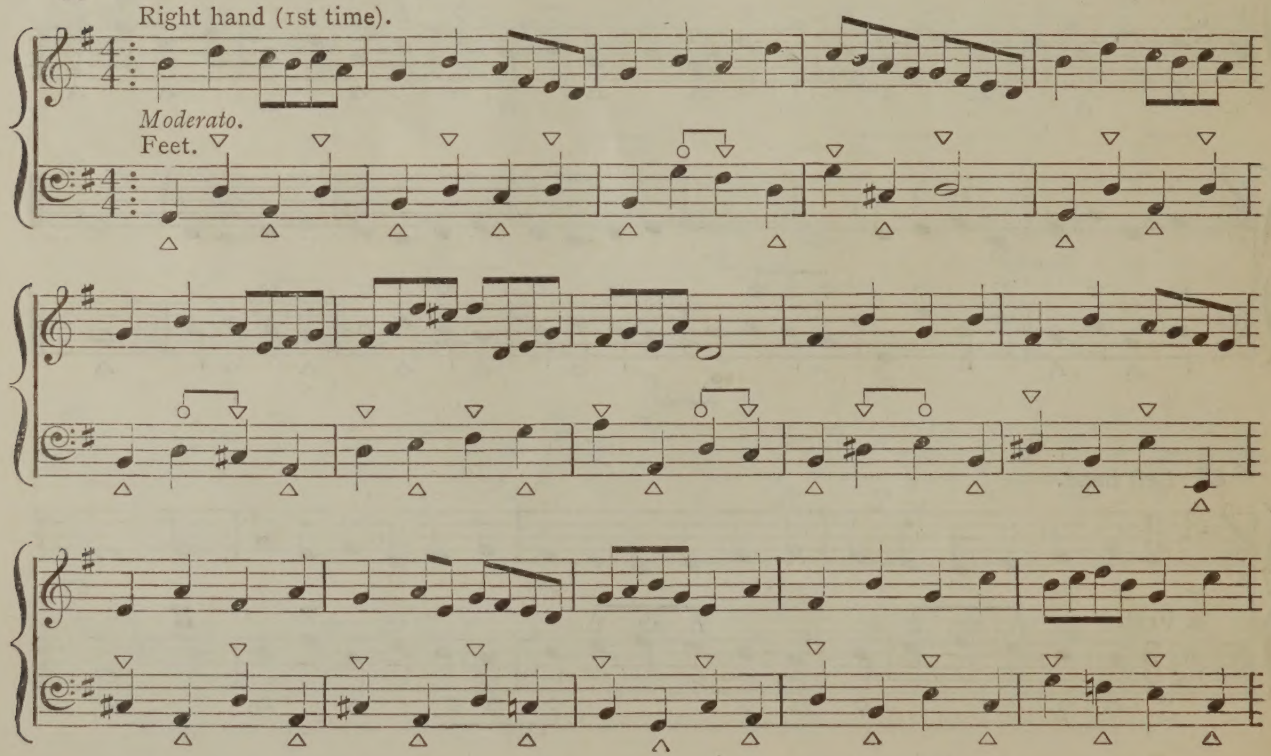


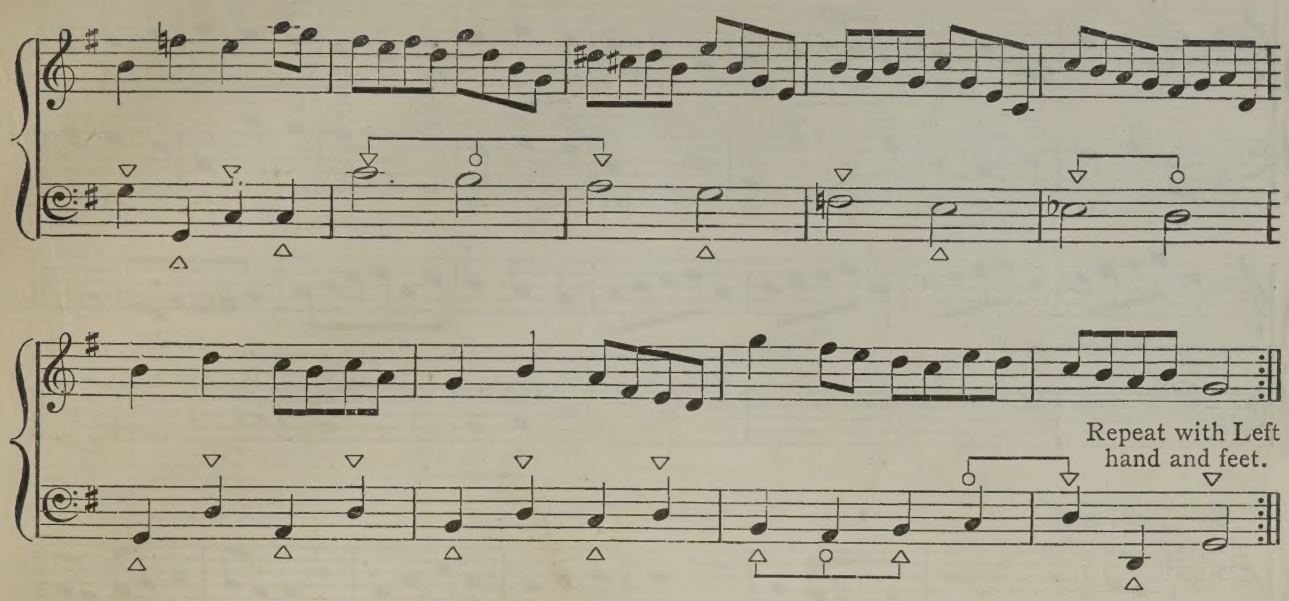


86

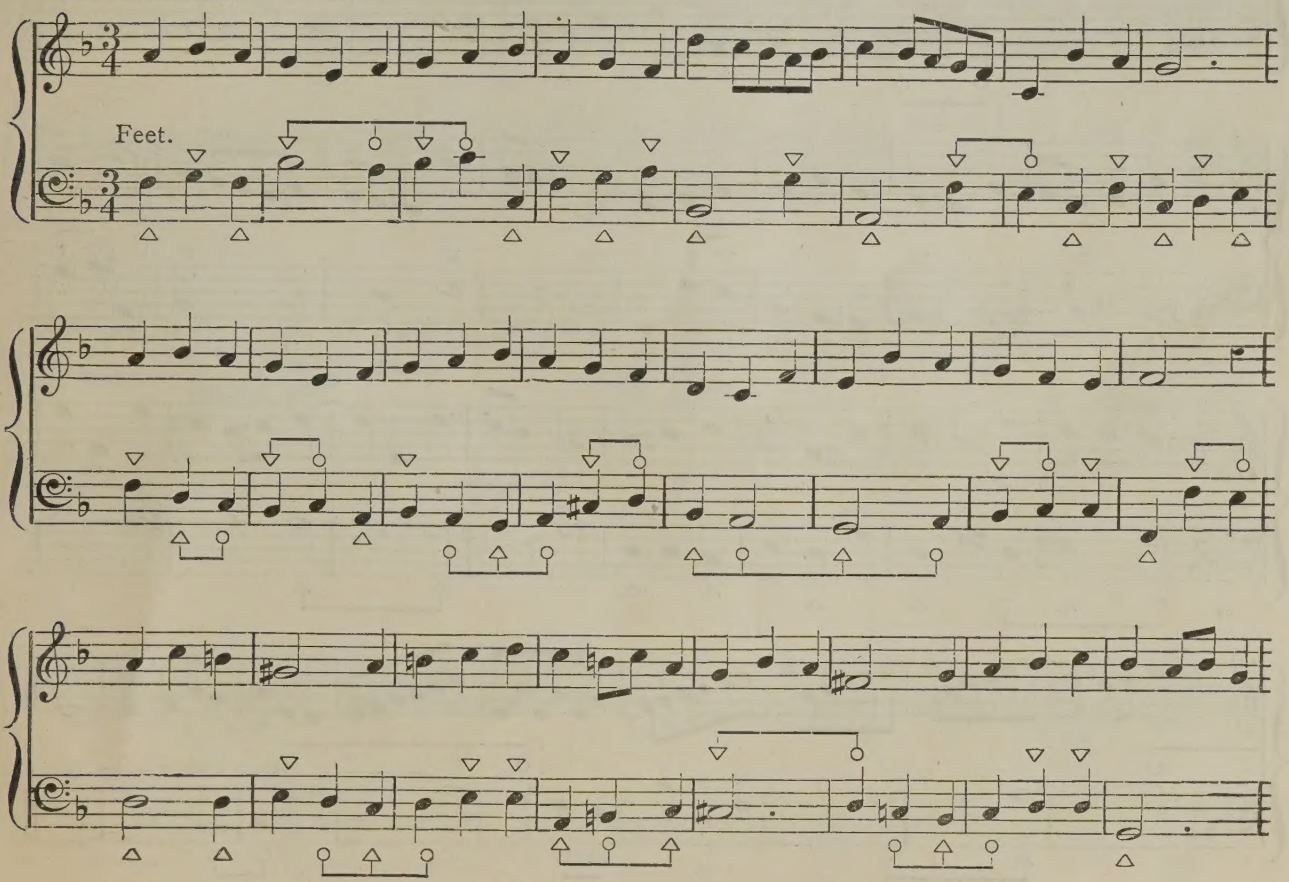
Right hand (1st time).

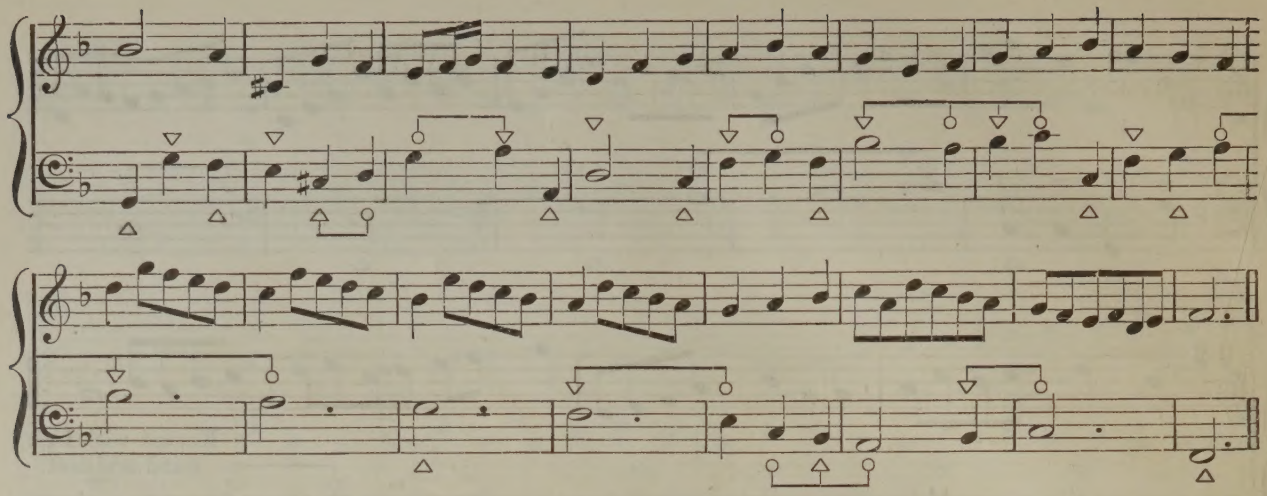
Moderato.
Feet.





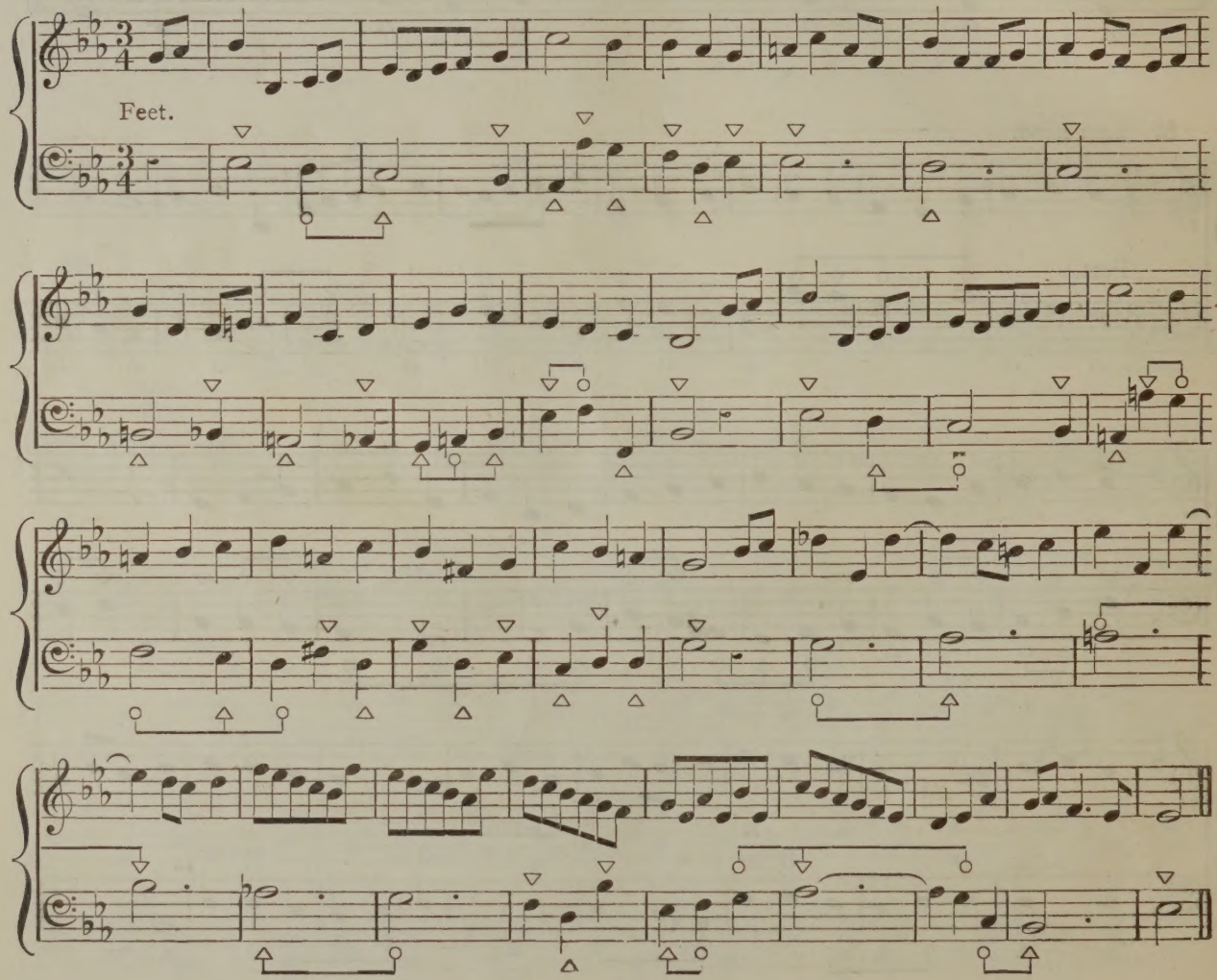
87 Lett hand.





88 Left hand.

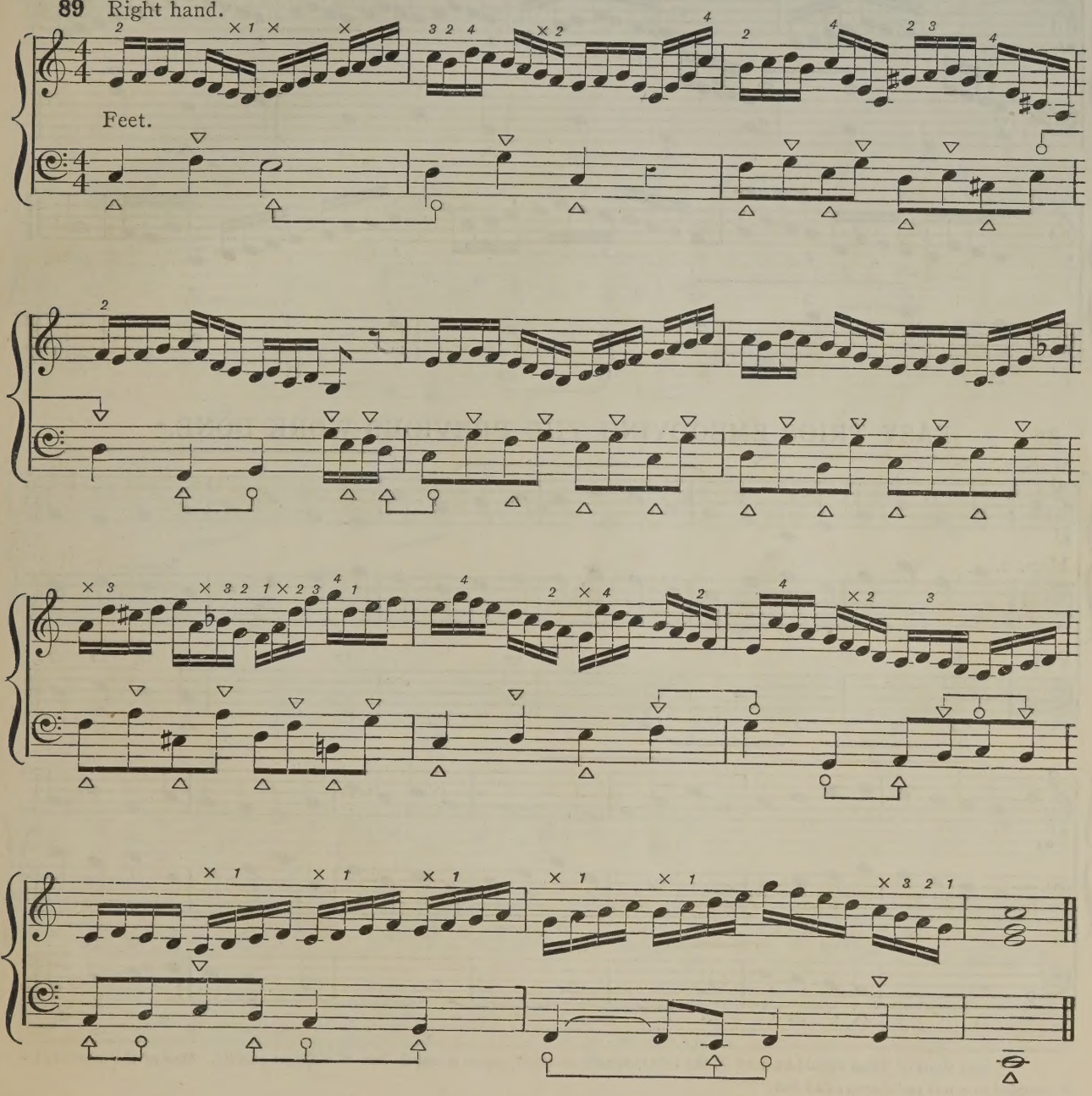
Feet.



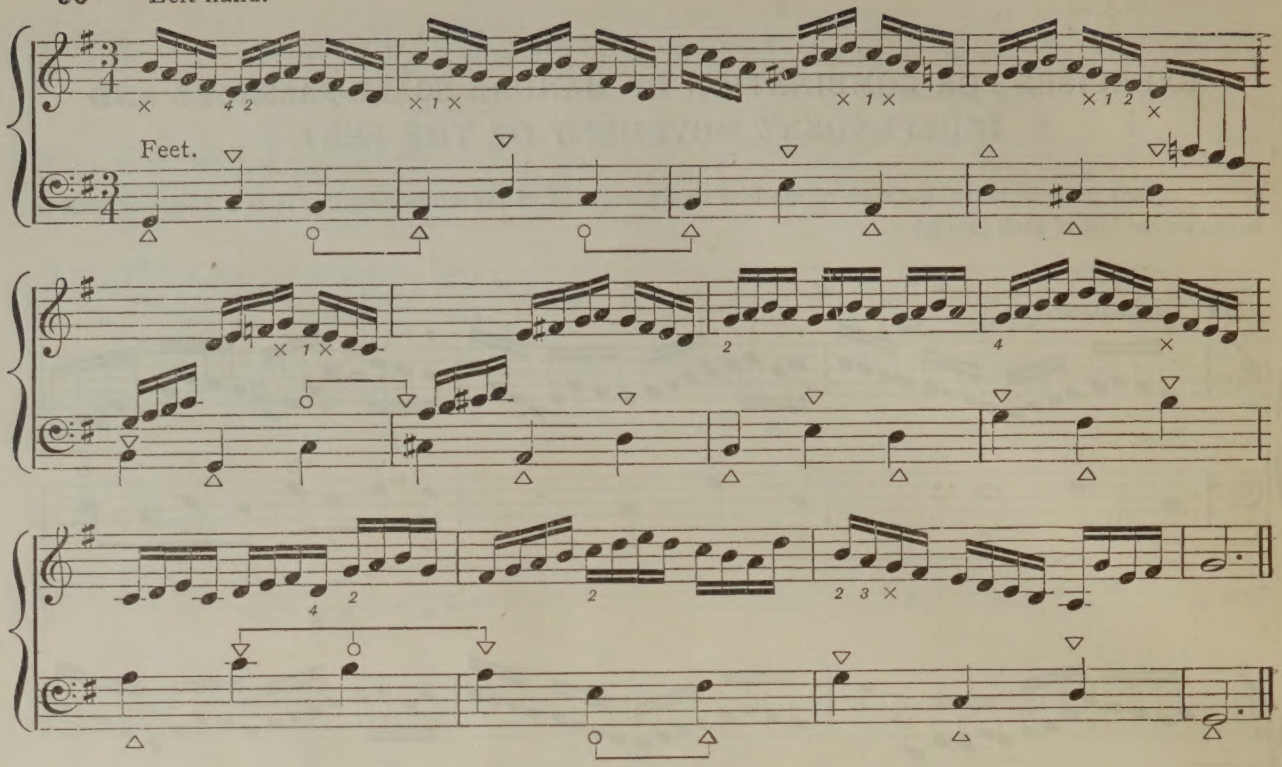
EXERCISES FOR COMBINATION OF MANUAL SCALE-PASSAGES AND INDEPENDENT MOVEMENT OF THE FEET.

(Care must be taken that each of the four semiquavers is of the same length. It is a common fault to pause on the last of each group.)

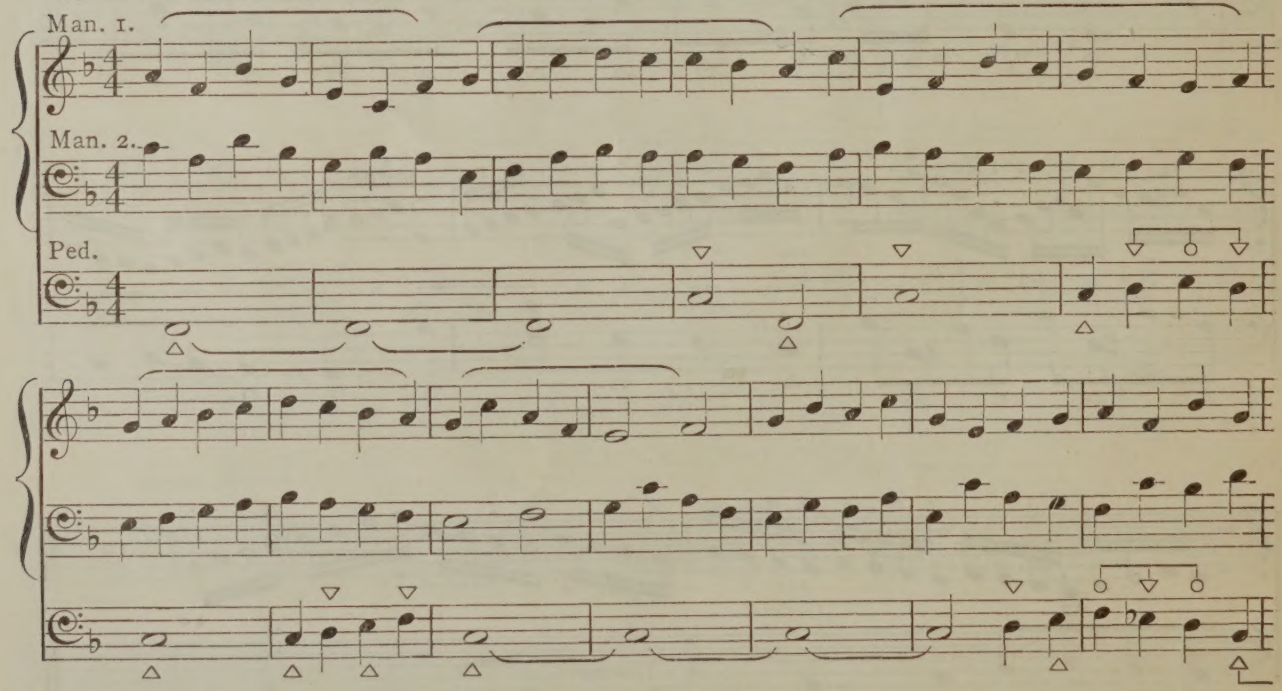
89 Right hand.



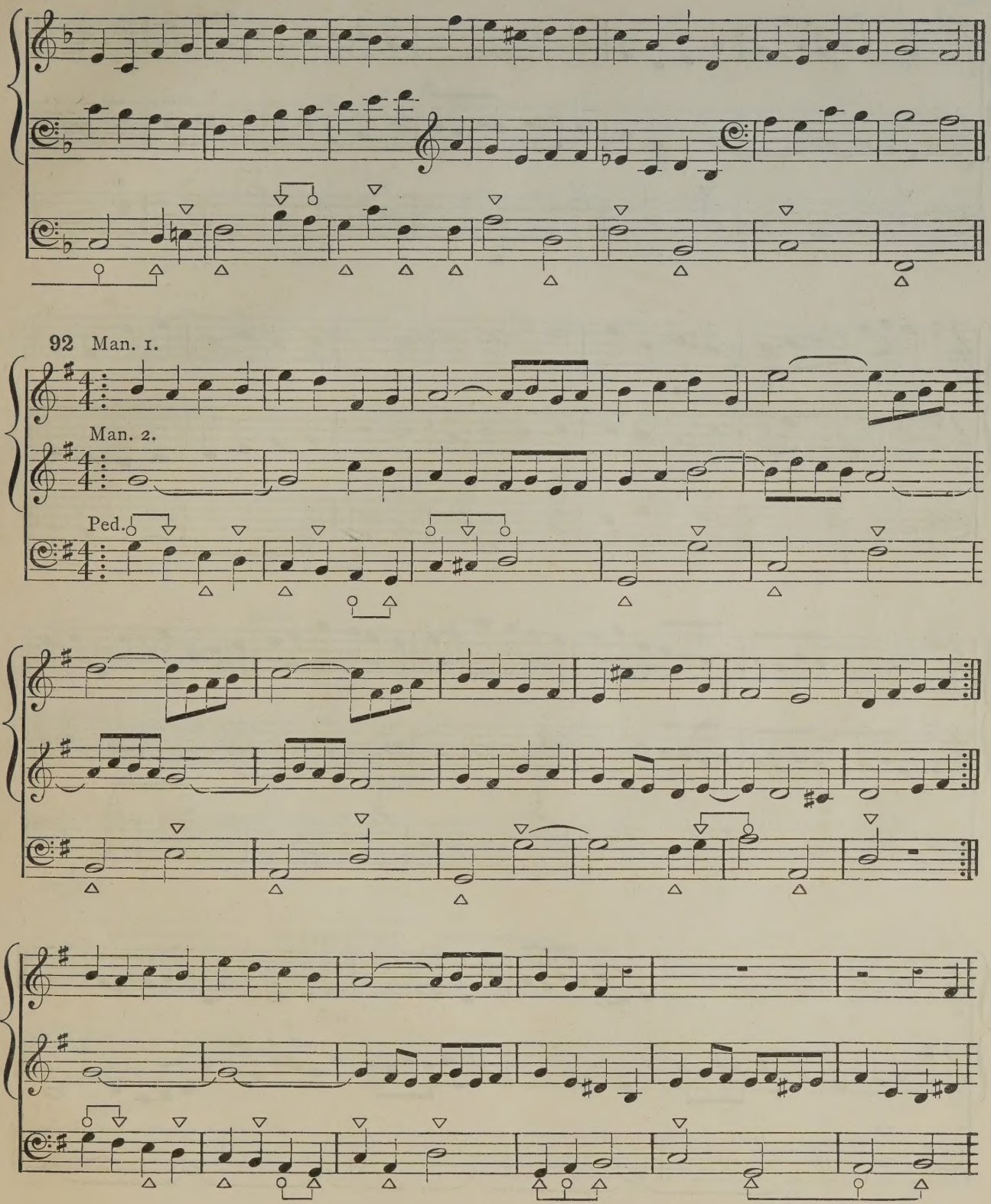
90 Left hand.

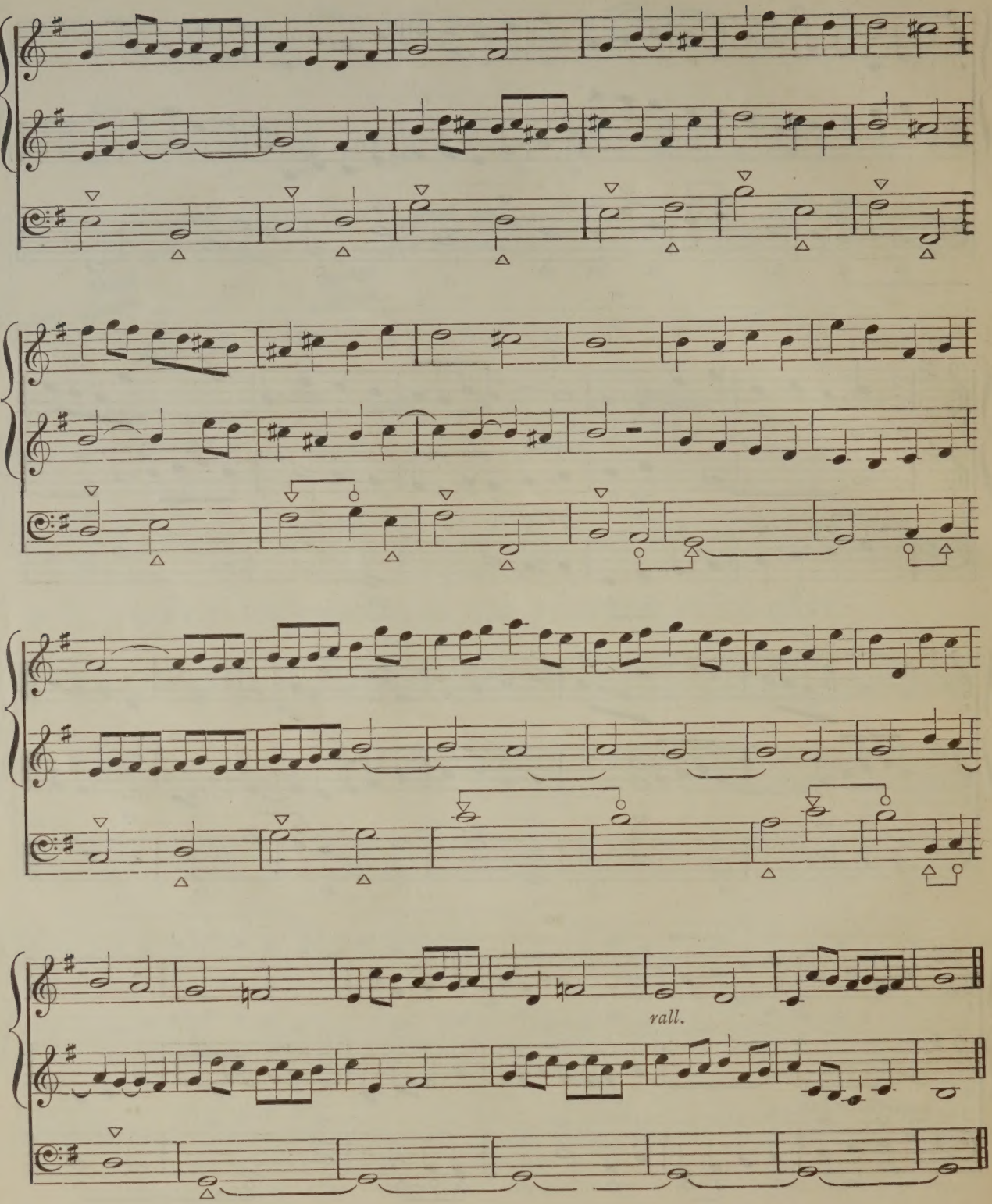


91 EASY TRIOS EMBODYING THE PREVIOUS WORK DONE.*



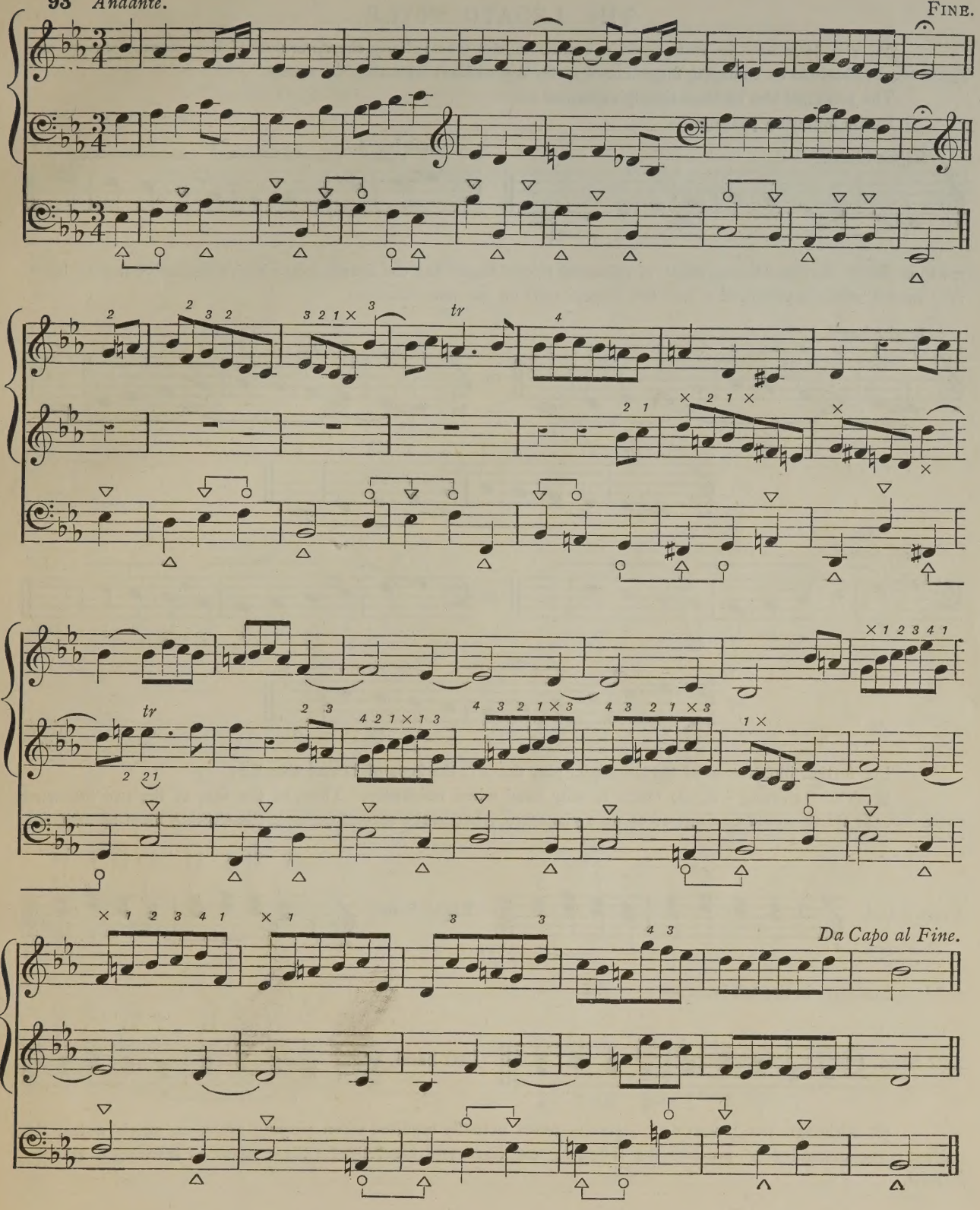
* Soft stops of 8 feet should be used on the two manuals, of nearly equal strength, but of different *quality*. One of the manuals to be coupled to a soft pedal-stop of 16 feet.


92
Man. 1.
Man. 2.
Ped.


rall.

93 *Andante.*

FINE.

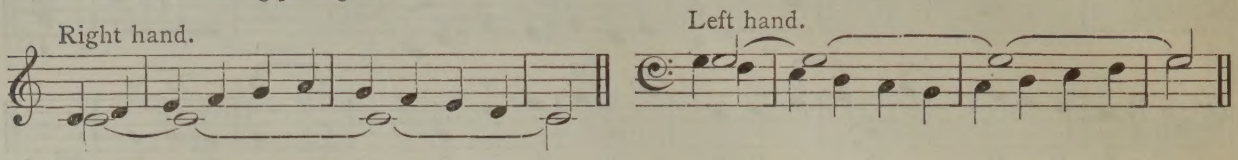


THE LEGATO STYLE.

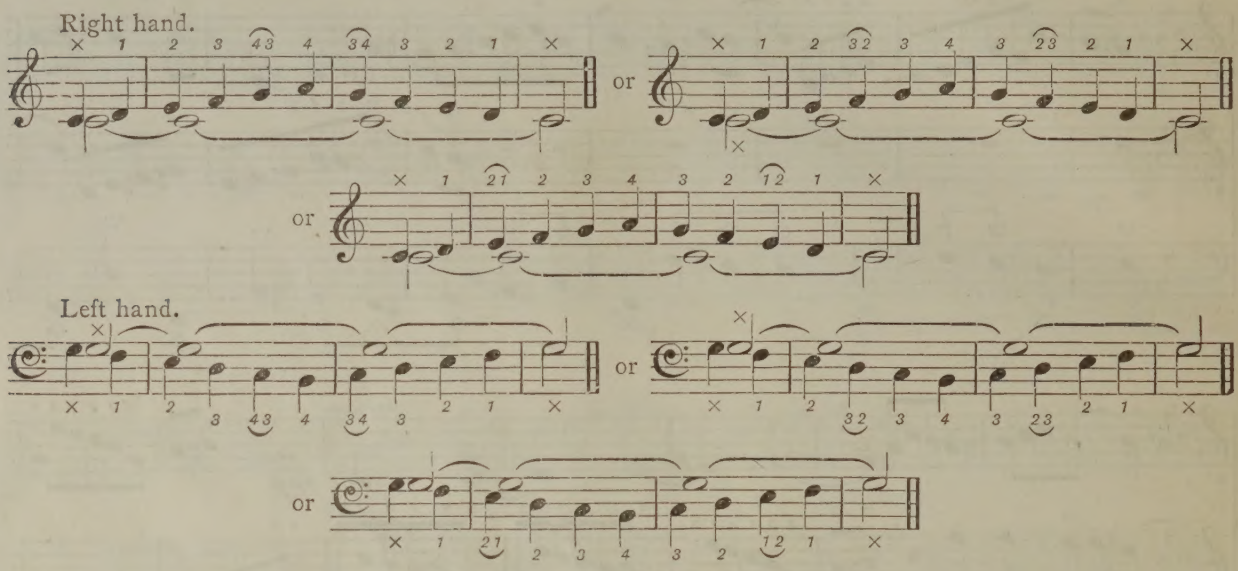
96. We have now to enter upon a branch of study essentially characteristic of the organ, namely, the *legato* touch, obtained by changing fingers on a given key without repeating the sound.

The principle can be thus simply explained :—

In the following passages—

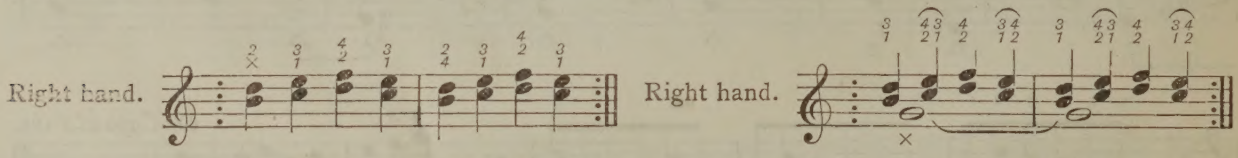


it will be found that a *staccato* effect is produced if one finger, say the fourth, plays two consecutive notes ; but a very smooth effect is produced if any two fingers *shift* on one note, thus :—

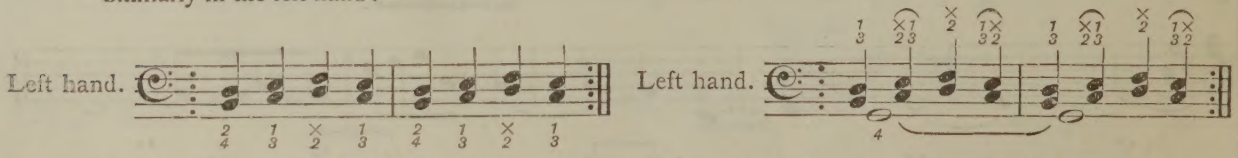


For further illustration of the principle, play these in the keys of D and also E♭.

97. The "shifting" *legato* touch is only used when necessary. Thus, in the first of the two following examples, the thirds would be fingered as on a pianoforte ; but in the second example the shifting must be used :—



Similarly in the left hand :—

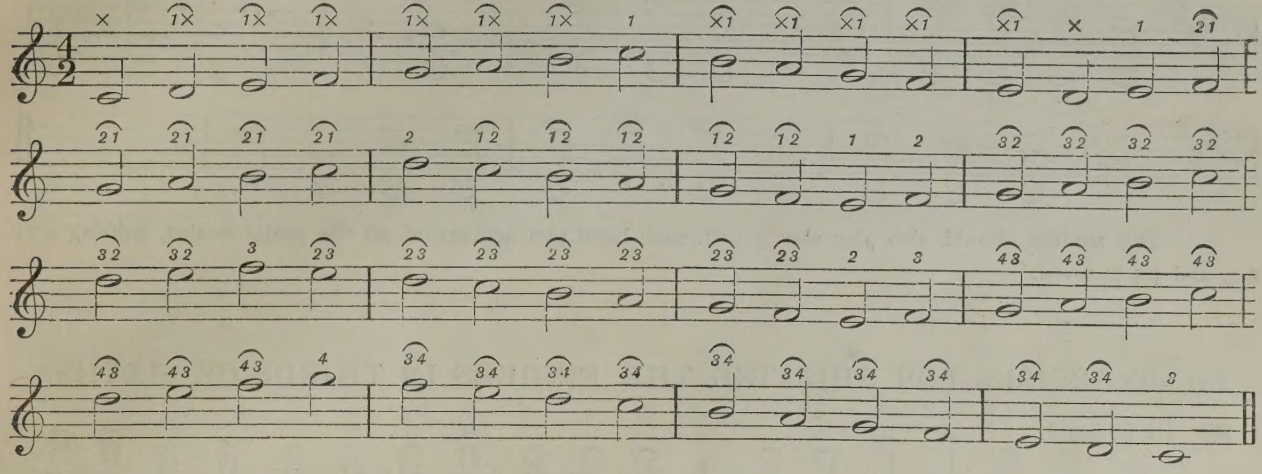


98. Although the "shifting" *legato* is never actually required when playing scales in single notes, the student is recommended to practise the following exercises very carefully, for the purpose of learning to shift by instinct.

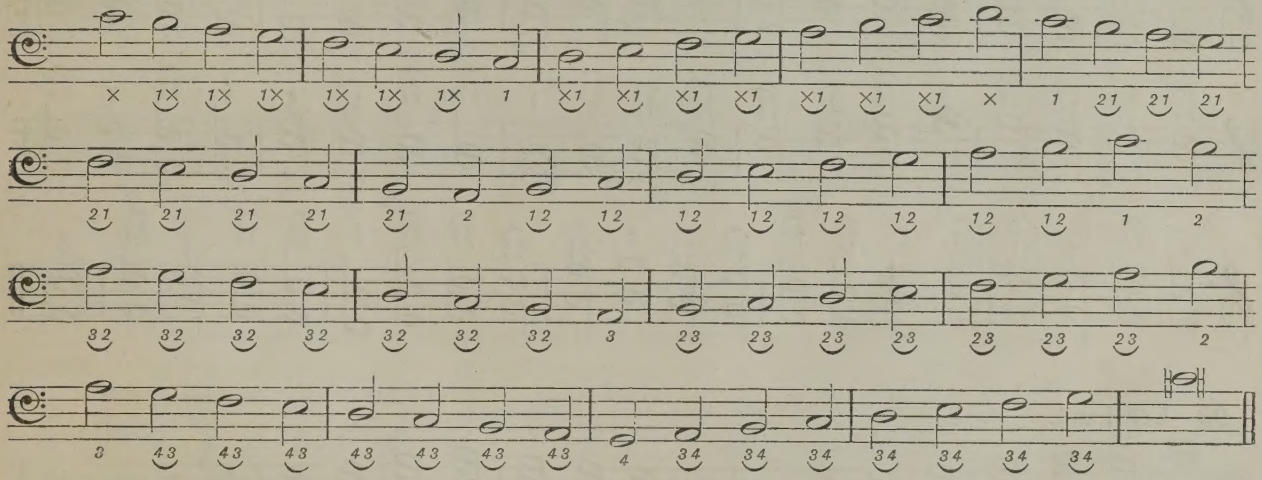
99. Three things have to be remembered whilst practising the following exercises:—

1. The notes must not be repeated when the fingers are changing.
2. The proper position of the hand is on no account to be disturbed.
3. Though played *legato*, the notes must not be run into one another, or *blurred*.

94 Right hand.

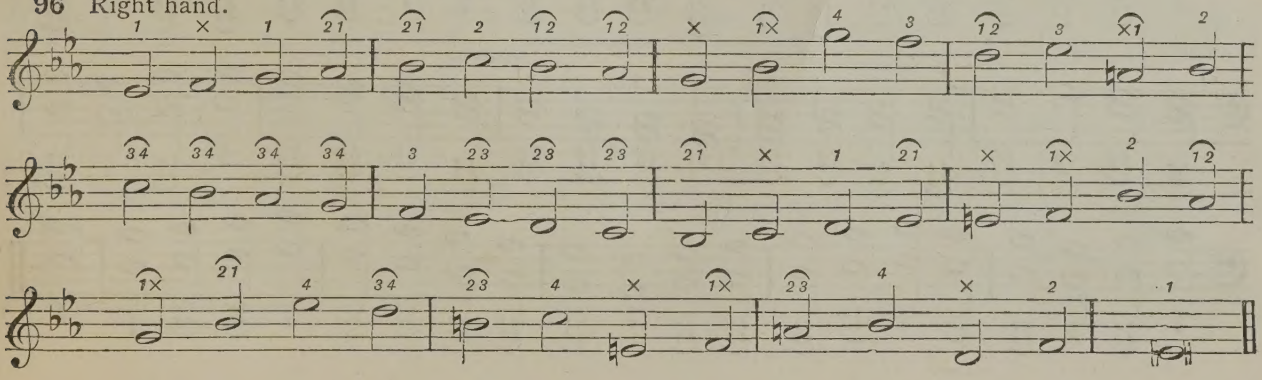


95 Left hand.

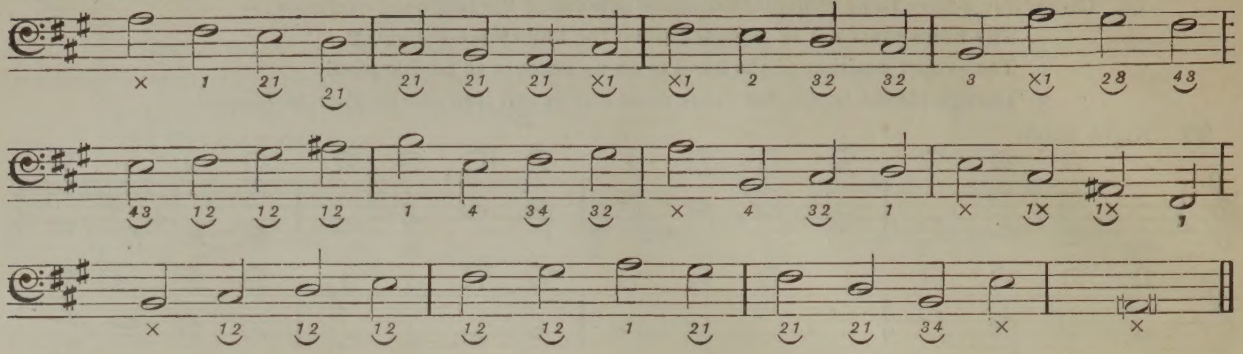


100. The change of fingers on the black keys must also be attentively practised.

96 Right hand.



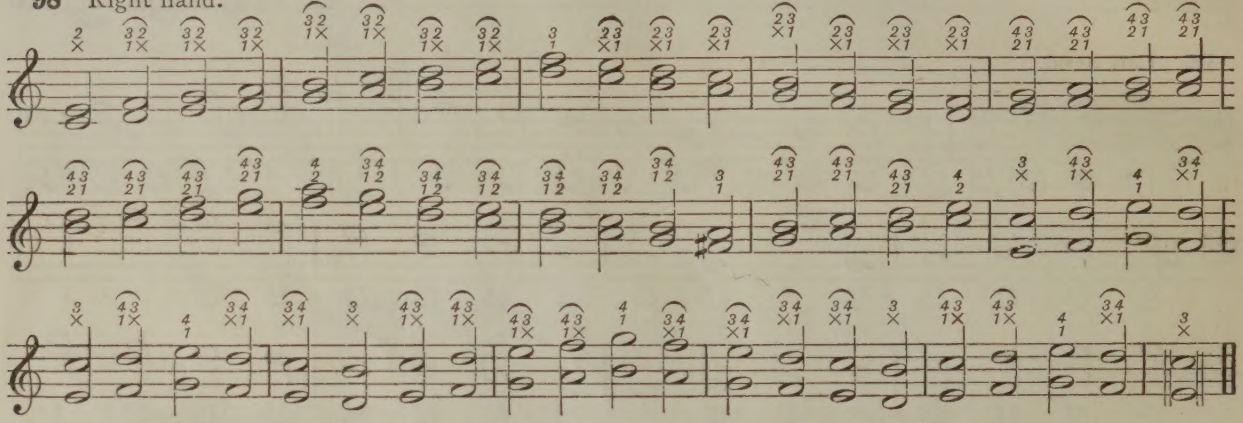
97 Left hand.



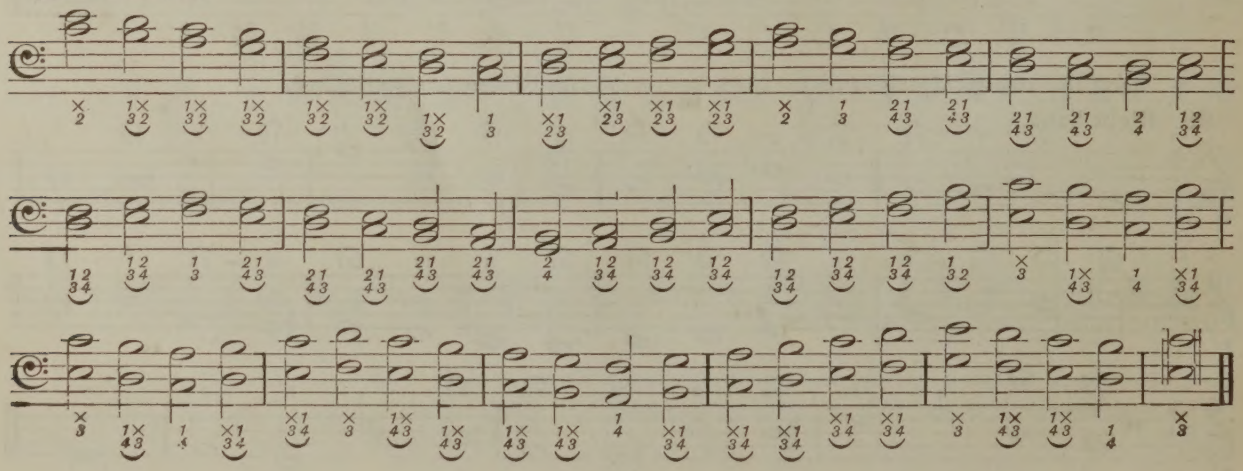
The student should also play slowly with each hand two octaves of all the major scales, shifting 1 2, 2 3, and 3 4 in turns.

101. EXERCISES FOR SHIFTING THE FINGERS IN THIRDS OR SIXTHS.

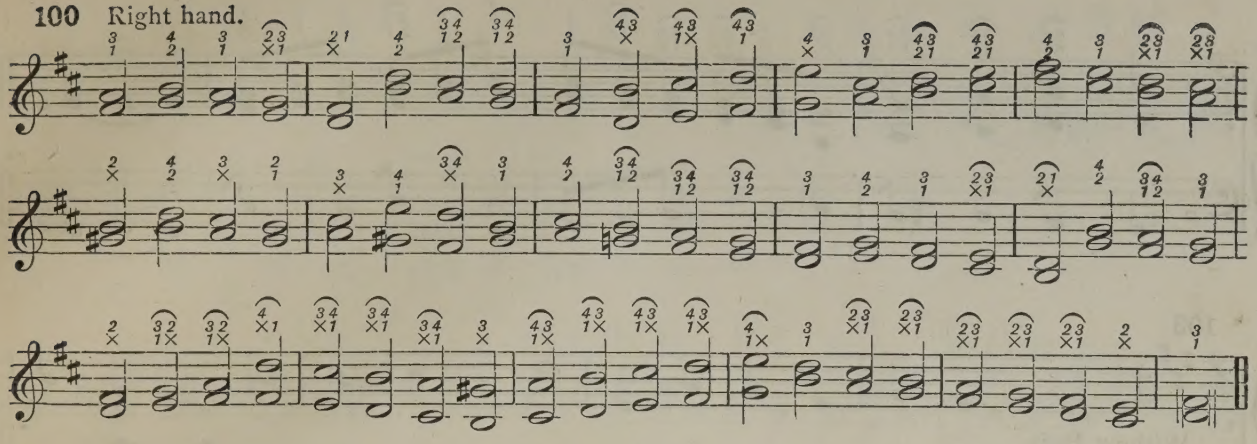
98 Right hand.



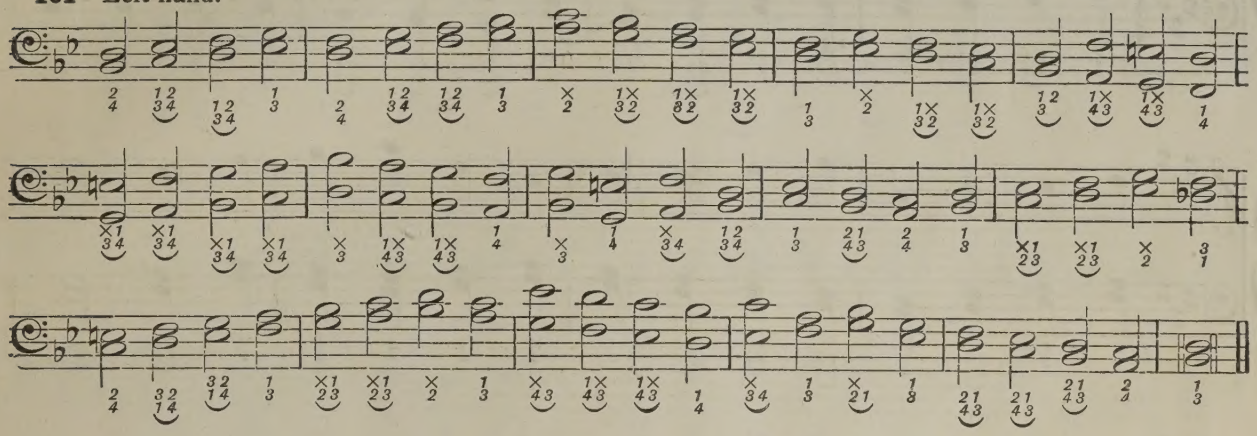
99 Left hand.



100 Right hand.



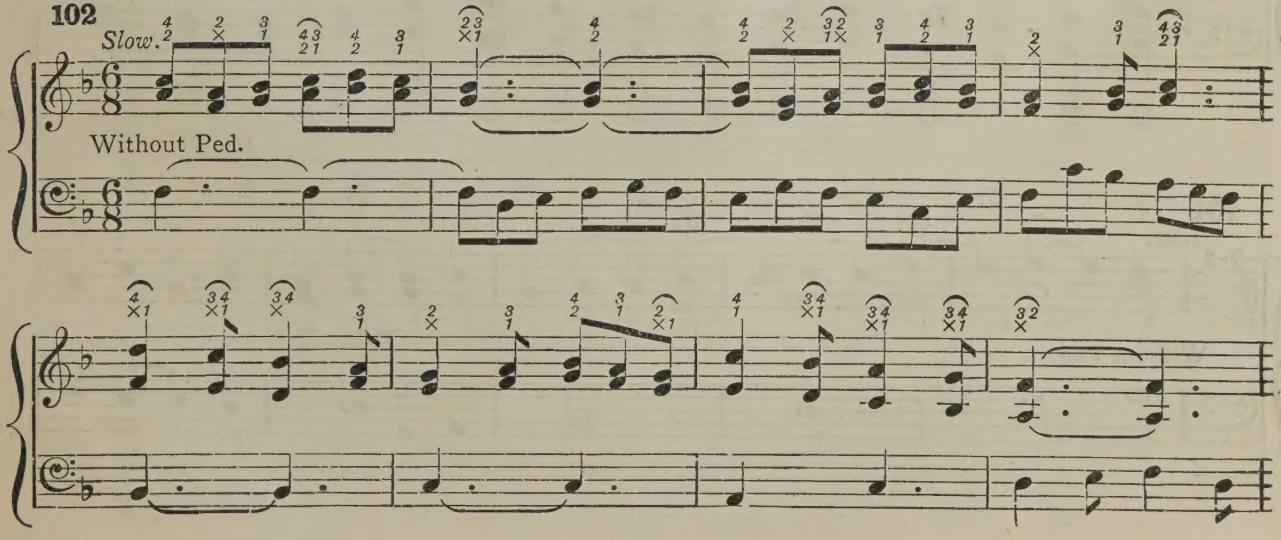
101 Left hand.

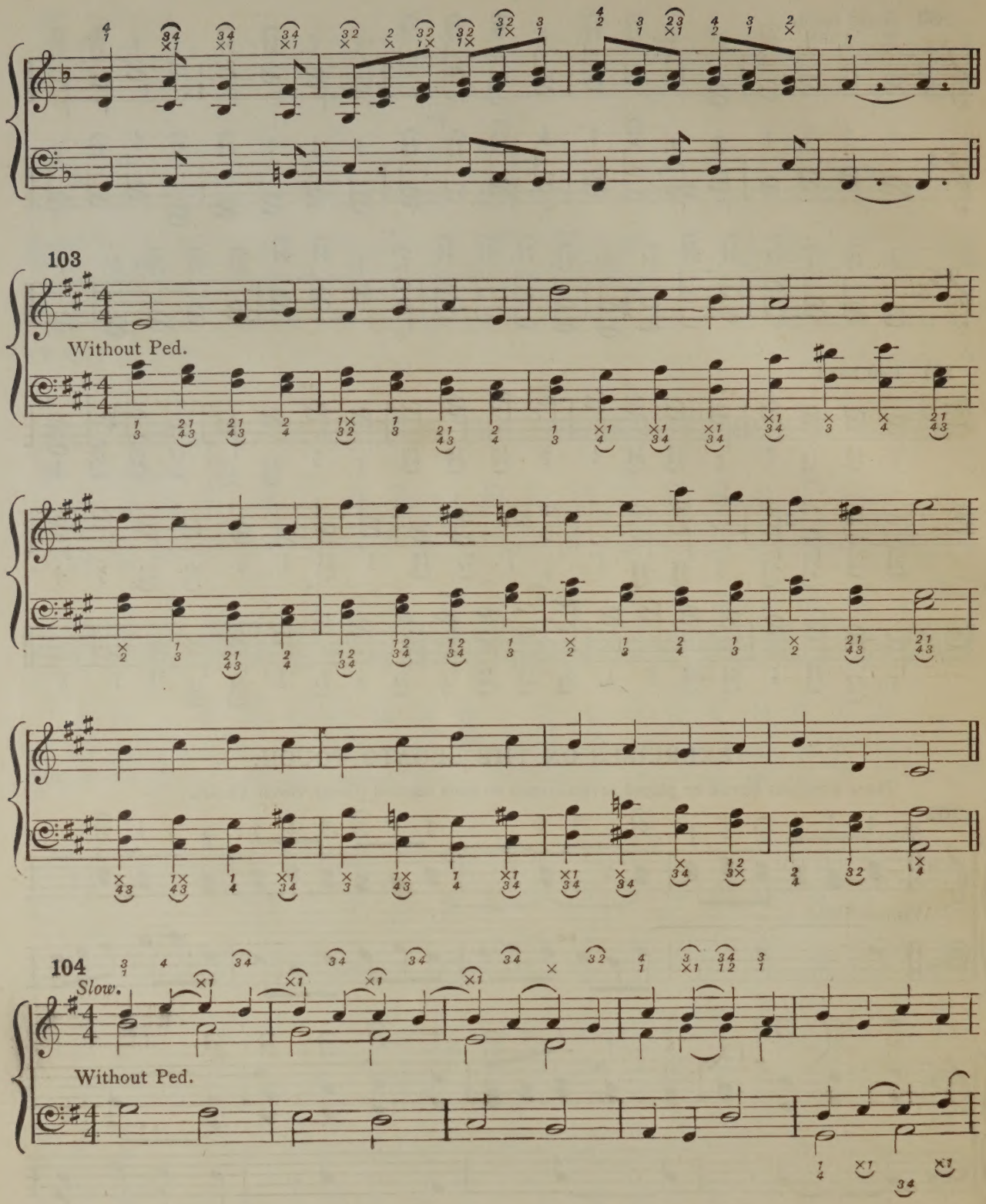


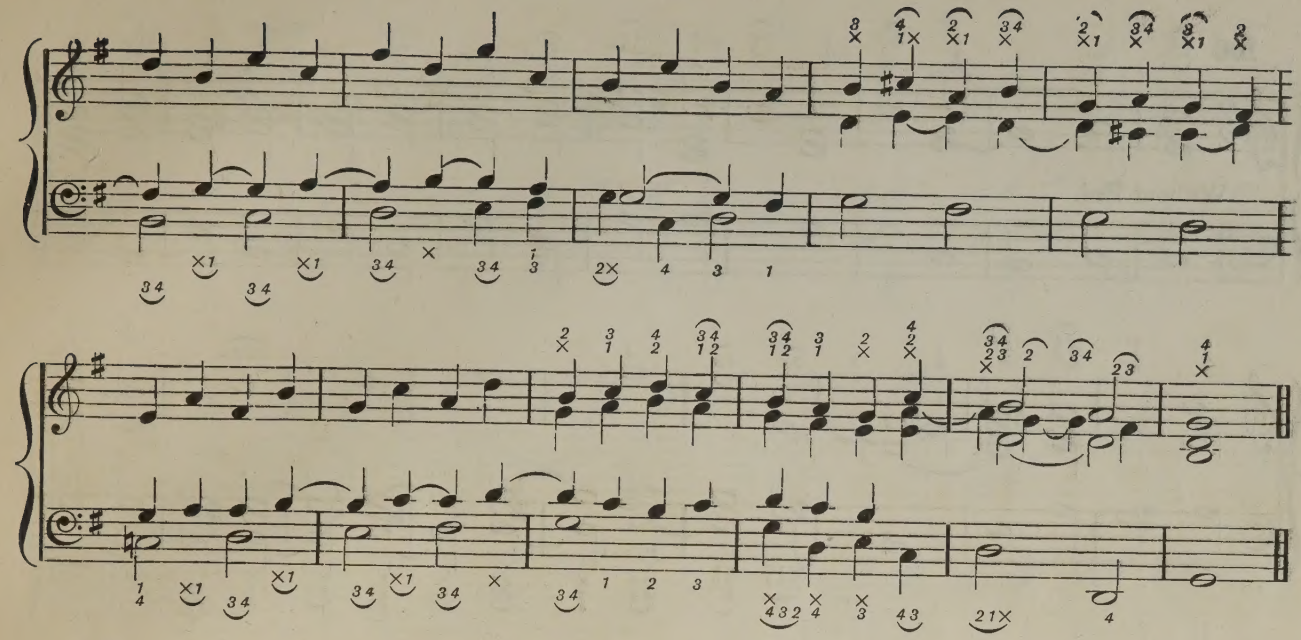
EXERCISES ON THE LEGATO TOUCH.

These exercises should be played several times on each manual (Great, Swell, Choir).

102



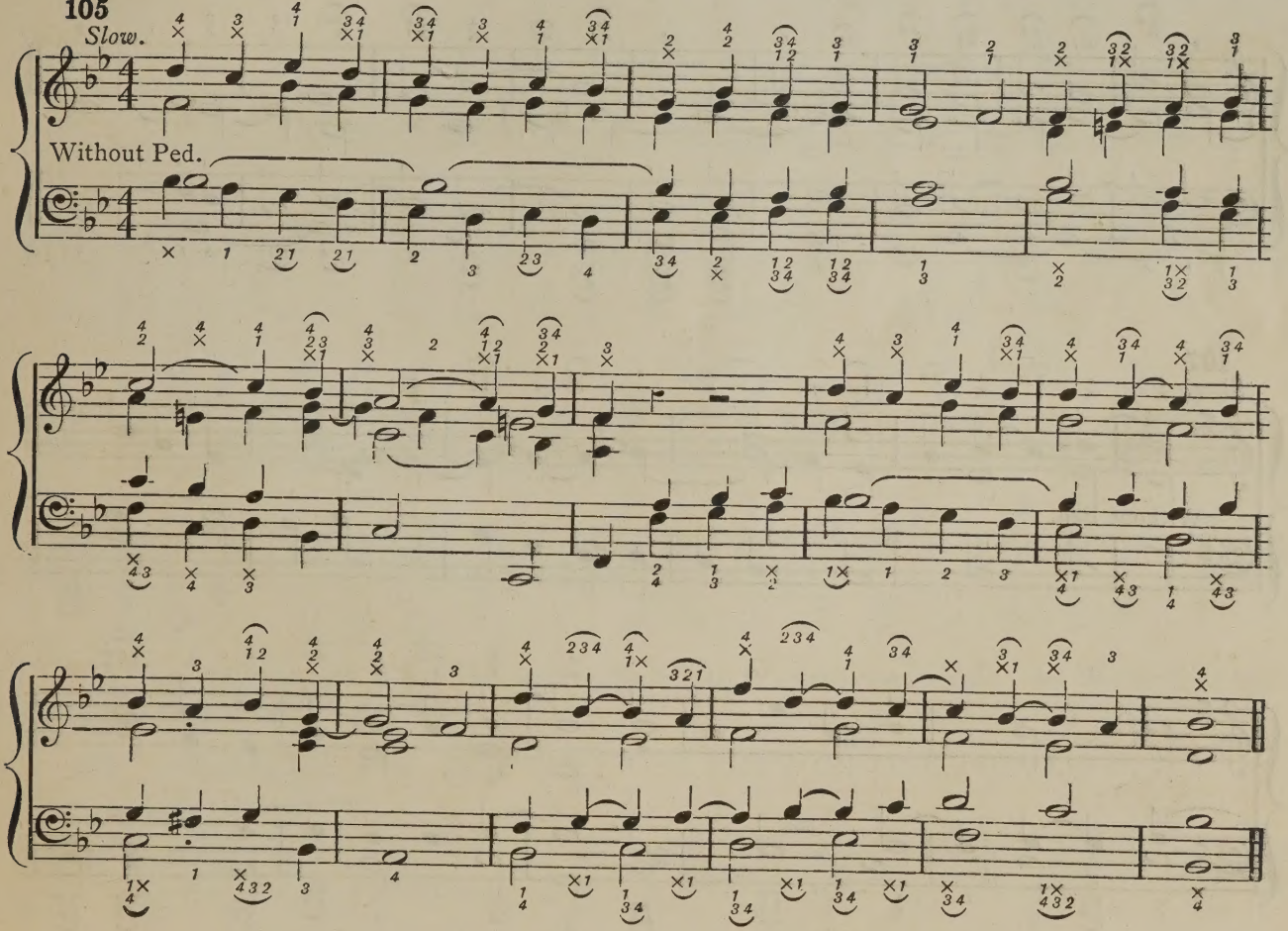

103
Without Ped.
104
Slow.
Without Ped.

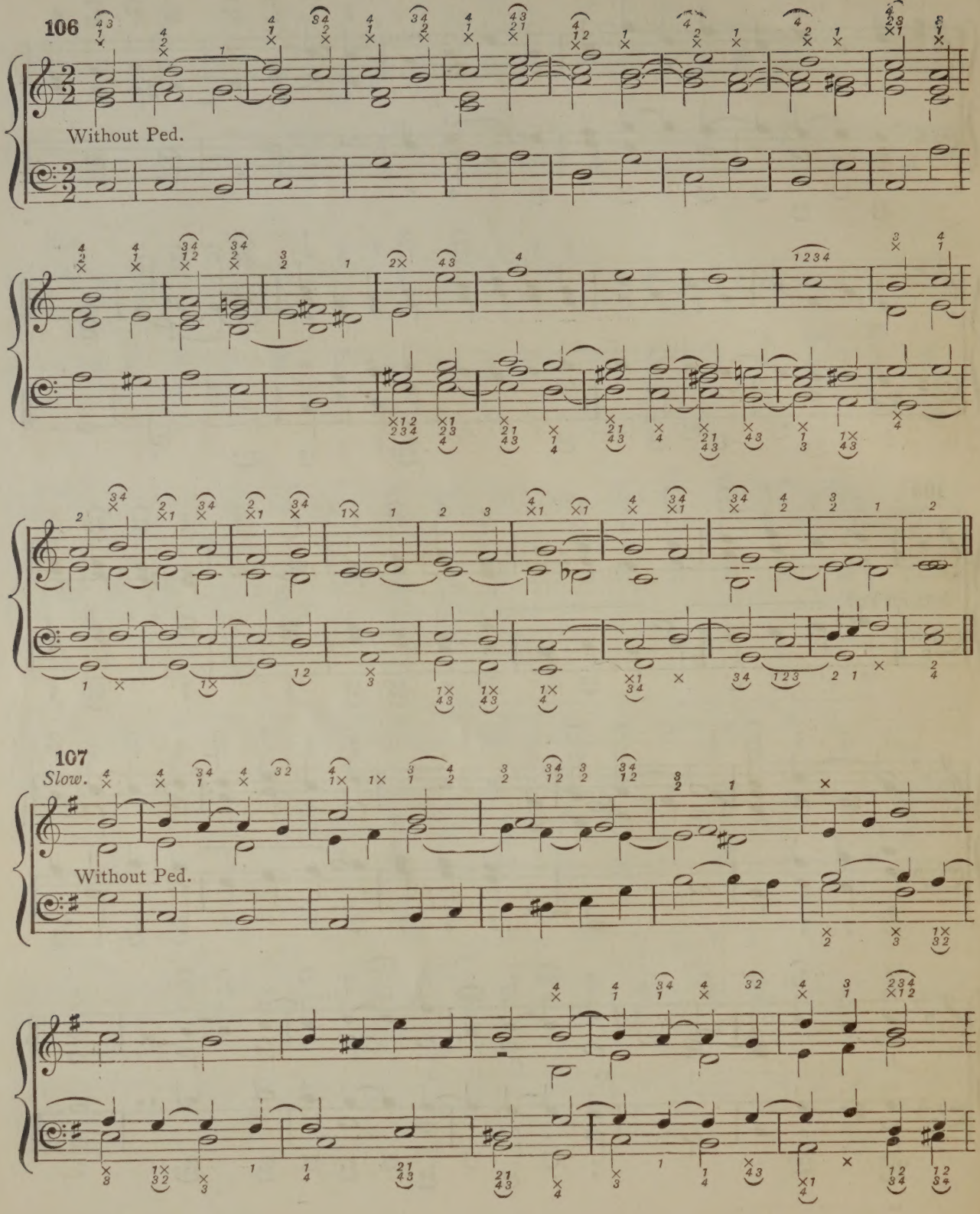


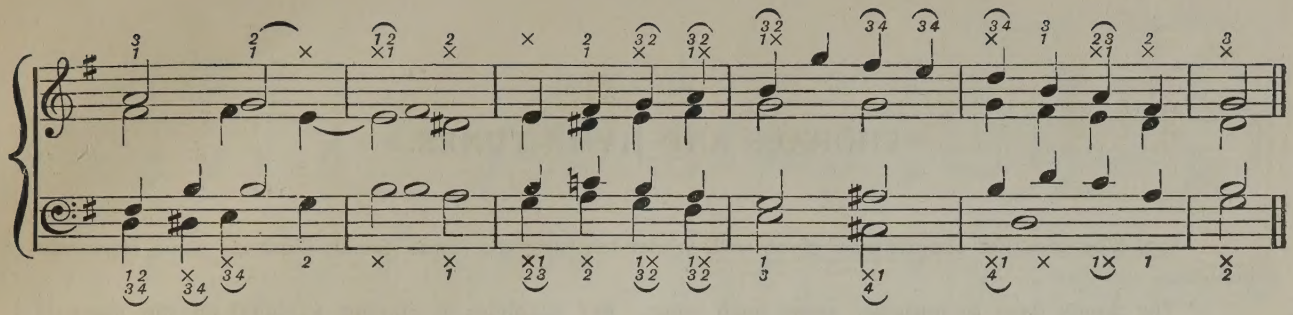
105

Slow.

Without Ped.

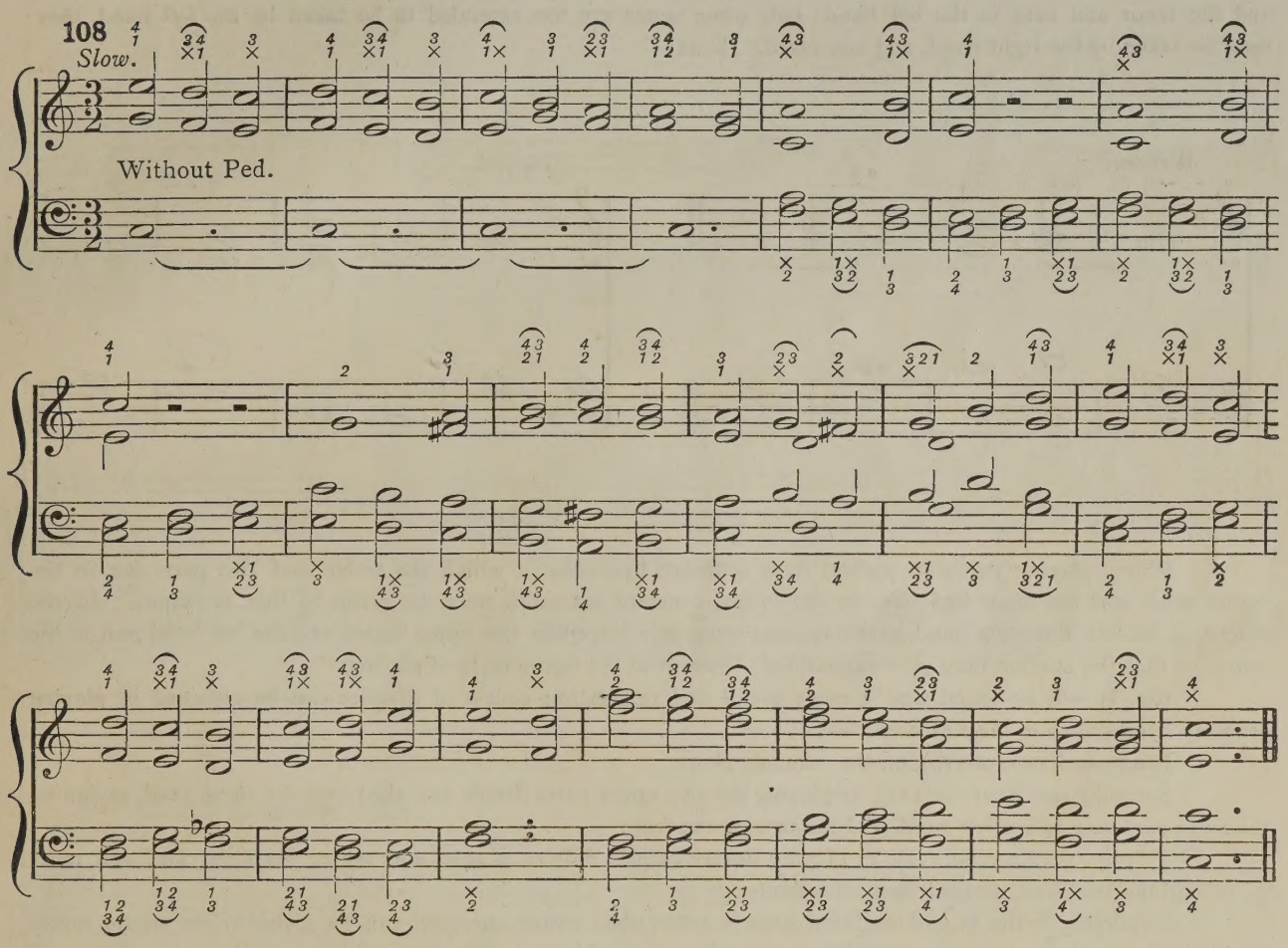



106
Without Ped.
107
Slow.
Without Ped.



108 *Slow.*

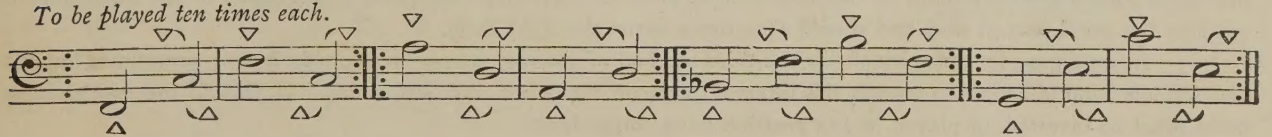
Without Ped.



102. The feet have also to shift occasionally in order to avoid a *staccato* style. But this rarely, if ever, has to be done on a short key or sharp.

109 EXERCISE FOR SHIFTING THE FEET ON ONE PEDAL-KEY.

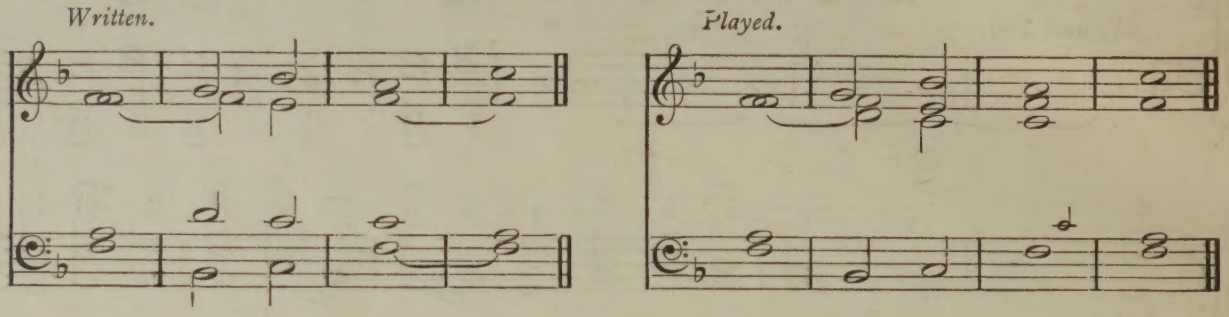
To be played ten times each.



CHORALS AND HYMN-TUNES.

103. The beautiful chorals now given will, whilst teaching the *legato* touch, illustrate some important principles.

The hands have to mutually assist each other. For example, in playing a choral on the manuals without using the pedals, two parts will ordinarily fall to each hand, namely, the treble and alto to the right hand, and the tenor and bass to the left hand; but, when notes are too extended to be taken by the *left* hand, they must be taken by the right hand, and *vice versâ*. Thus:—



When playing (without pedals) from ordinary hymnals, in which the treble and alto parts are in the upper stave and the tenor and bass in the lower, constant attention must be given to this principle. In the following chorals the right-hand part has been purposely placed in the upper stave, and the left-hand part in the lower, so that the student may give unqualified attention to the *legato* style of playing.

104. It will be found that a most useful and interesting course of practice can be obtained by playing ordinary hymn-tunes in *three* different ways:

First (*see* Exercise 110), on the manuals alone;

Secondly (*see* Exercise 111), by playing the two upper parts (treble and alto) with the right hand, assigning the *tenor part only* to the left hand, and the bass to the feet;

Thirdly (*see* Exercise 112), by playing the treble part only as a solo, and taking both the alto and tenor parts with the left hand, and the bass with the feet.

In playing in the first of the three ways just described entire attention can be given to the *legato* touch. Occasionally a note must be transferred from the left to the right hand without repetition. An example of this will be found in the sixth bar from the end of Exercise 110.

In playing in the second manner, great care should be taken to prevent the left hand from *doubling the pedal part*. The left hand will often have to play a note already drawn down by the pedal coupler; in such cases the finger should always remain on the note as if its presence were required there. Although the left hand should not play the pedal part, it may and should sometimes assist the right hand.

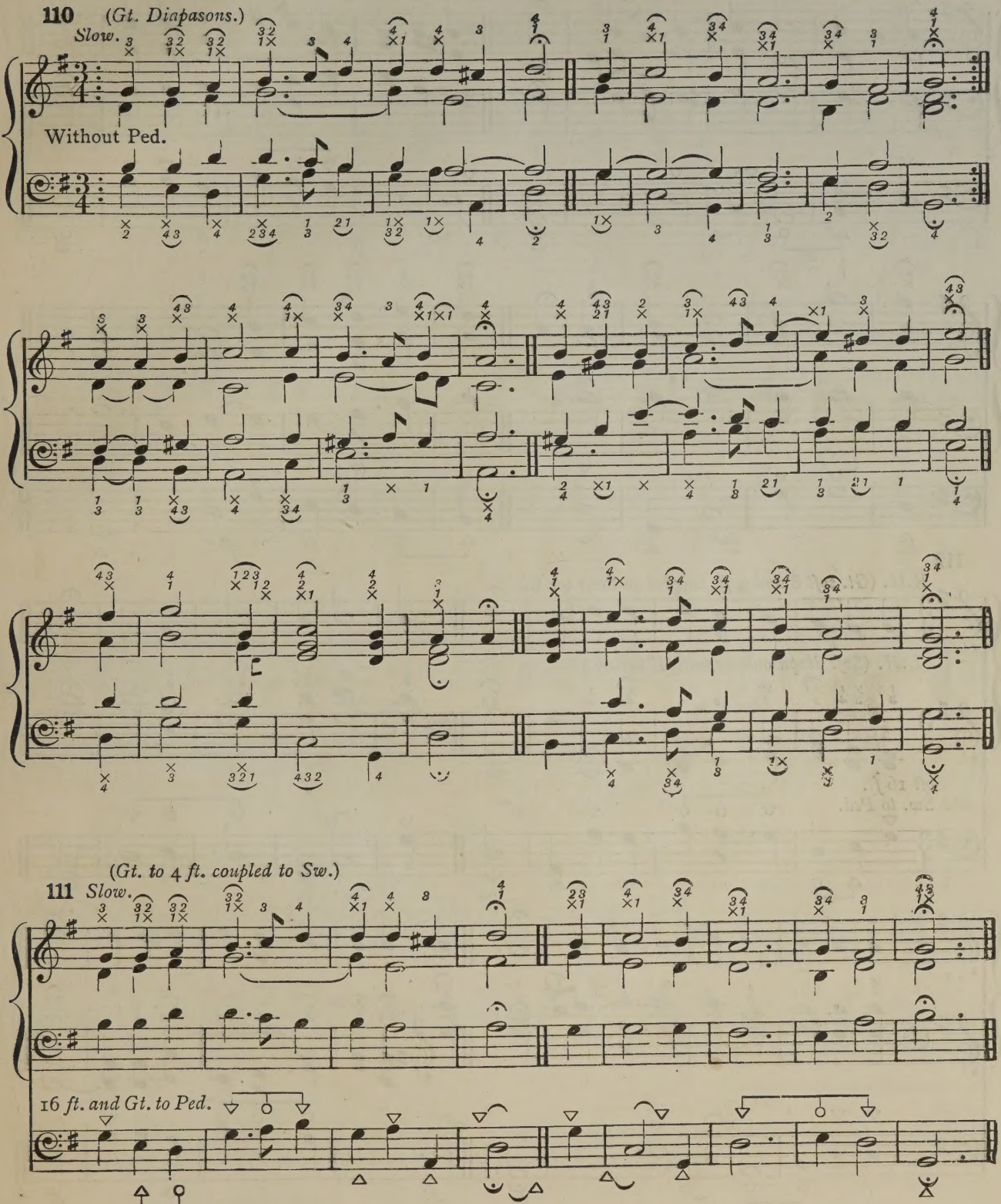
In arranging four-part music for the third method of playing, above mentioned, it will sometimes happen that the left hand is unable to stretch the interval between the tenor and alto parts. If this is the case the two notes must be inverted, or played in any position most convenient.

Harmonised by J. S. Bach.

110 *(Gt. Diapasons.)*

Slow.

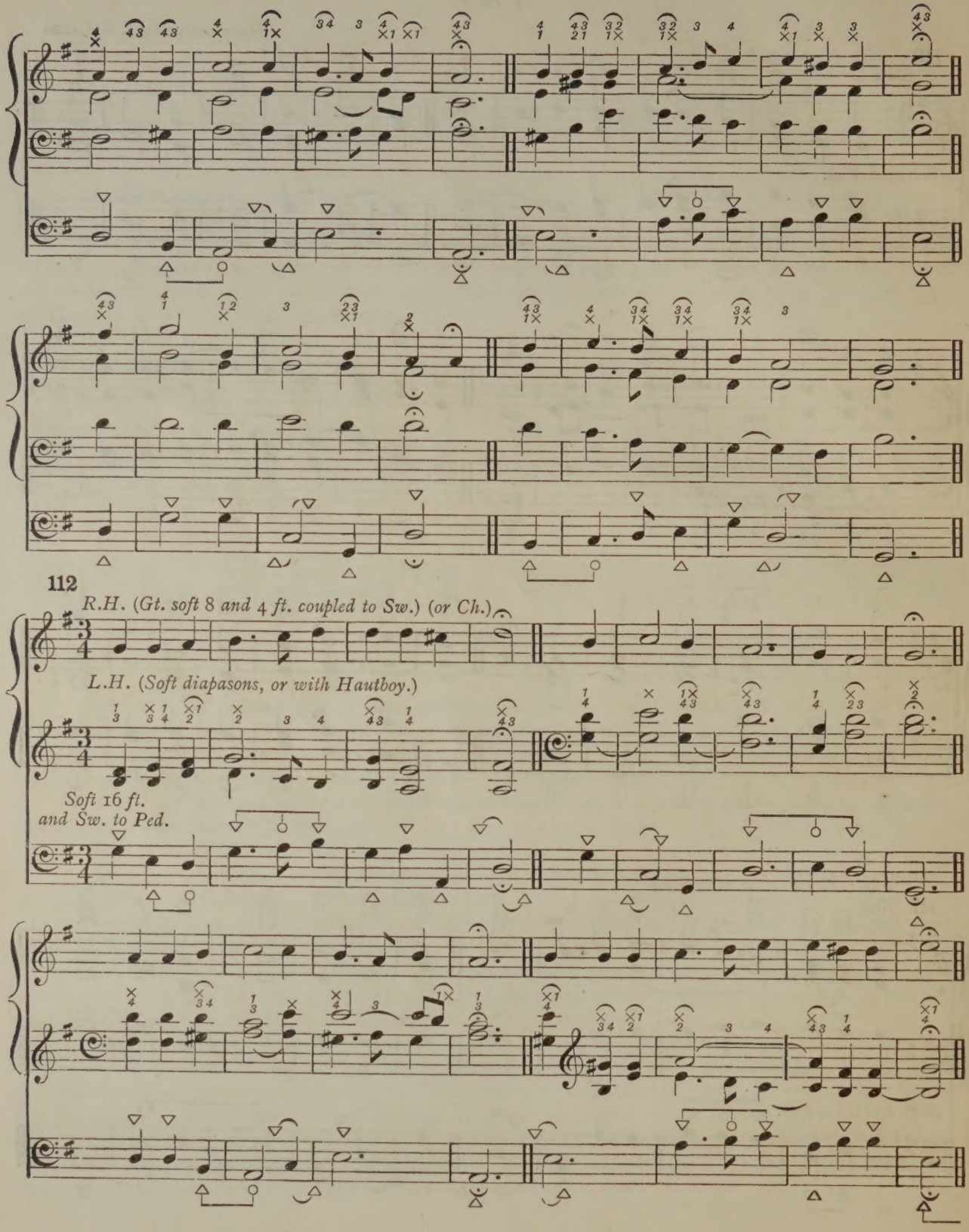
Without Ped.

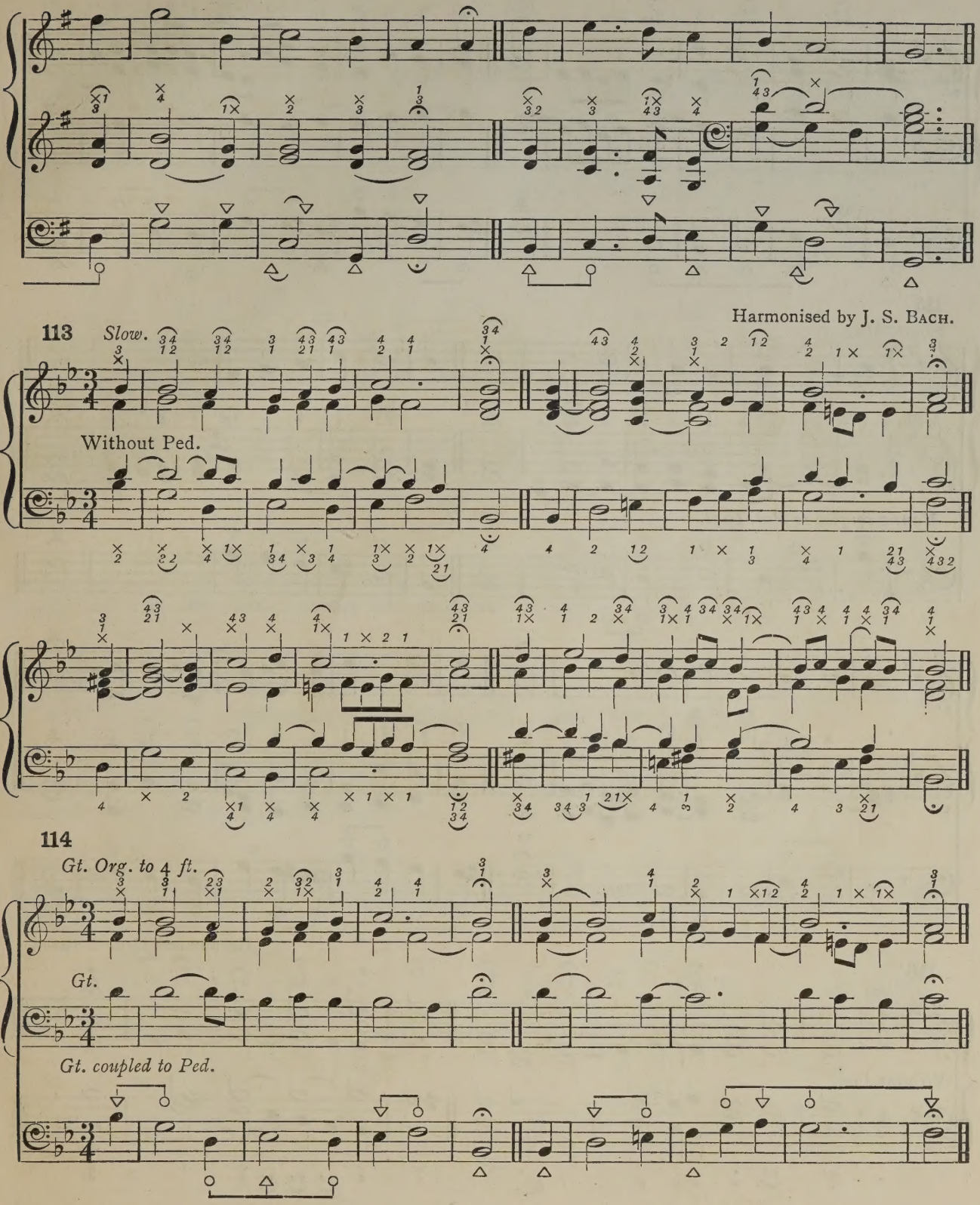


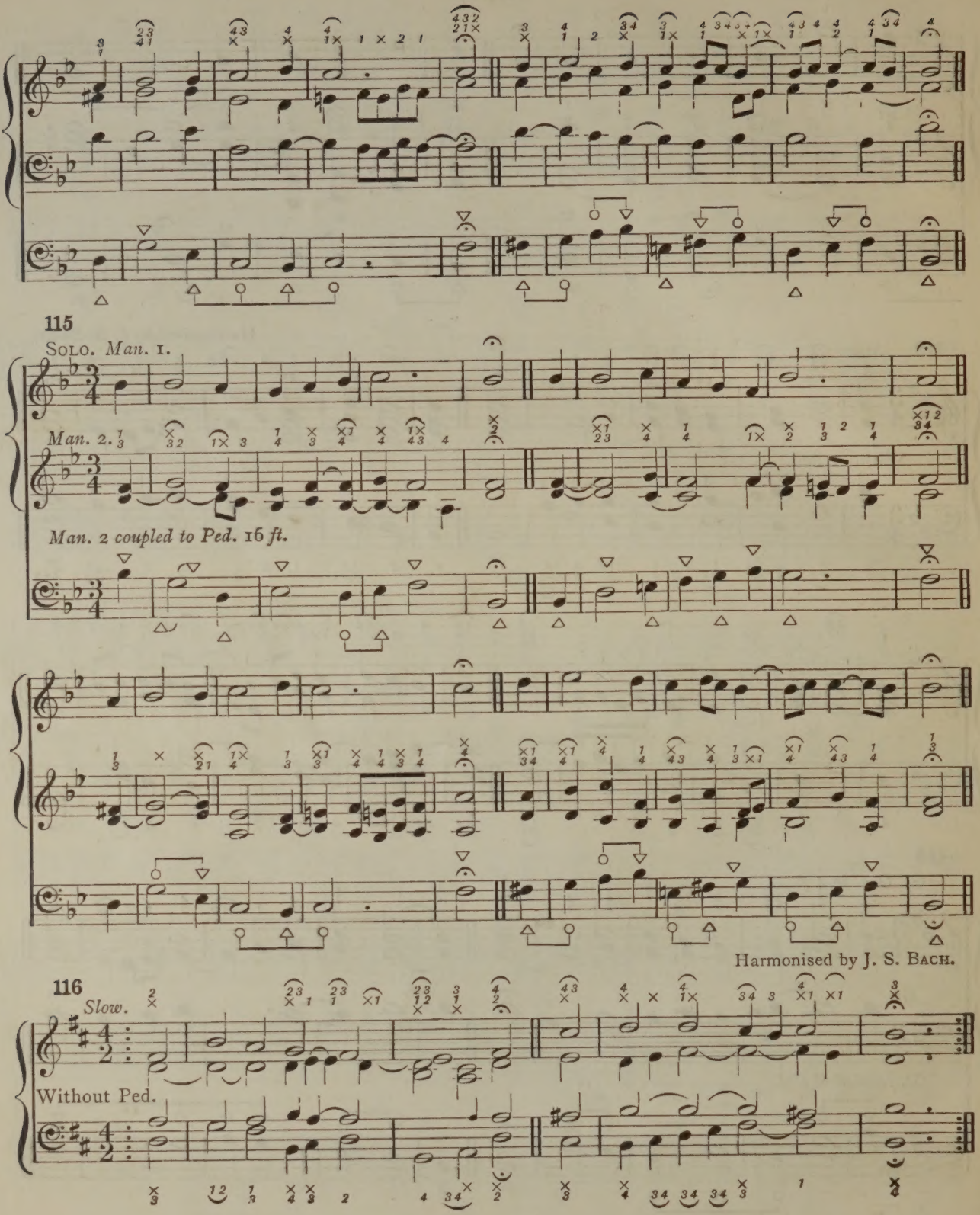
(Gt. to 4 ft. coupled to Sw.)

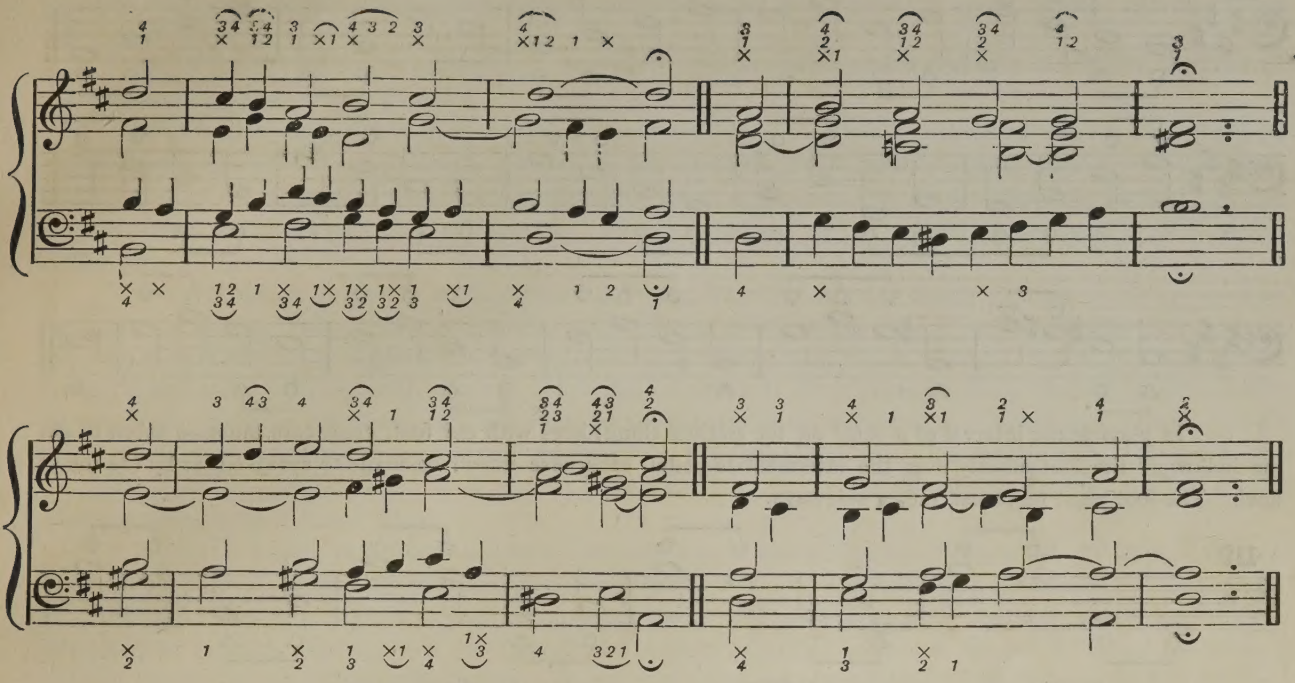
111 *Slow.*

16 *ft. and Gt. to Ped.*


112
R.H. (Gt. soft 8 and 4 ft. coupled to Sw.) (or Ch.)
L.H. (Soft diapasons, or with Hautboy.)
Soft 16 ft.
and Sw. to Ped.


Harmonised by J. S. Bach.
113
Slow.
Without Ped.
114
Gt. Org. to 4 ft.
Gt.
Gt. coupled to Ped.

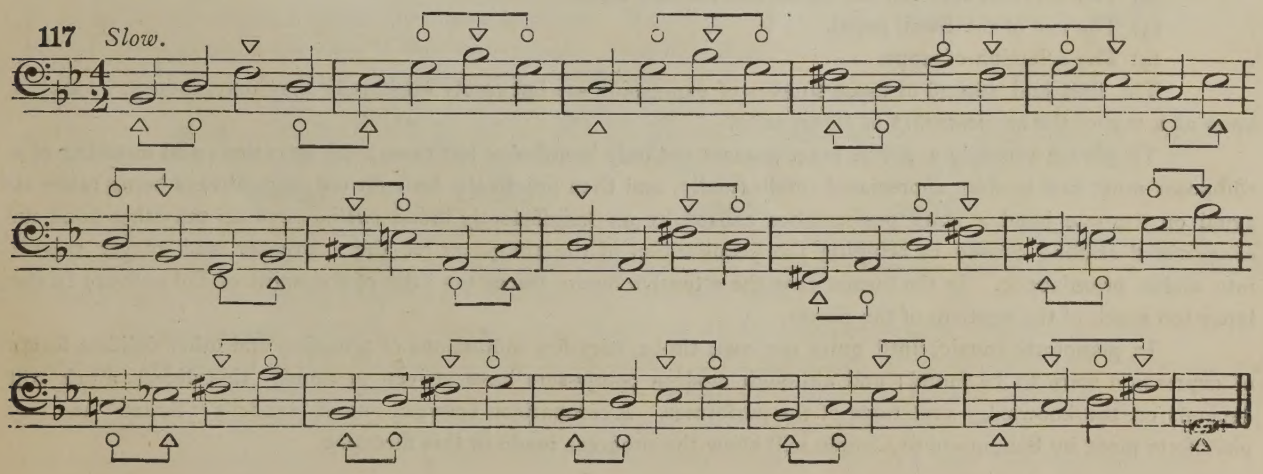

115
Solo. Man. 1.
Man. 2.
Man. 2 coupled to Ped. 16 ft.
Harmonised by J. S. Bach.
116
Slow.
Without Ped.



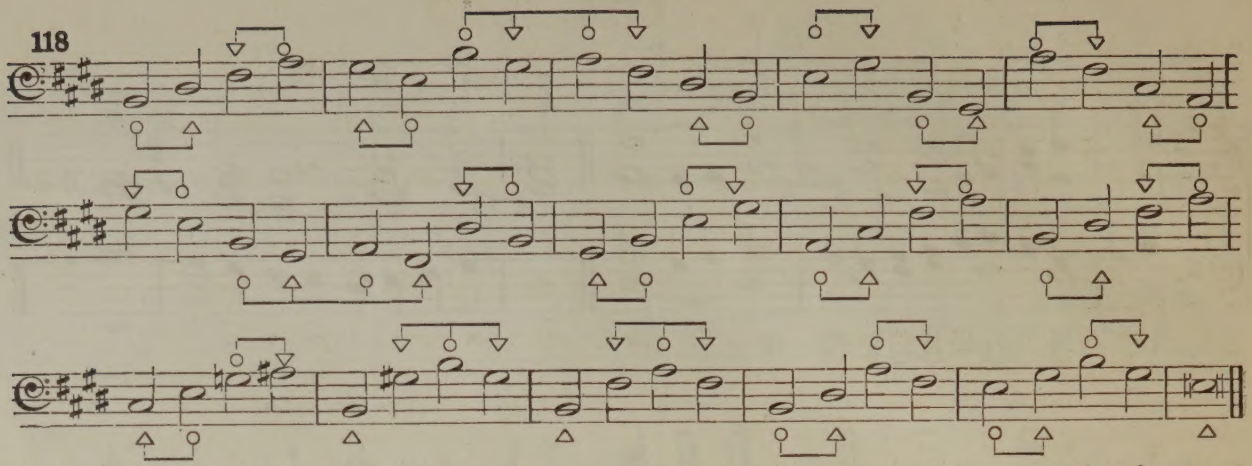
The student should, under his master's direction, arrange the above tune according to the two other methods before described. Pupils having very small hands will find this style of music very difficult, whereas those having hands more than usually large may for themselves devise fingering of an easier kind.

EXTENDED PASSAGES FOR THE FEET.

The student may have noticed that, in pedalling, the interval of a third is often taken by one foot; this is specially useful when one of the keys is a sharp or flat. He is strongly advised to make himself familiar with this system by carefully practising the following exercises :—

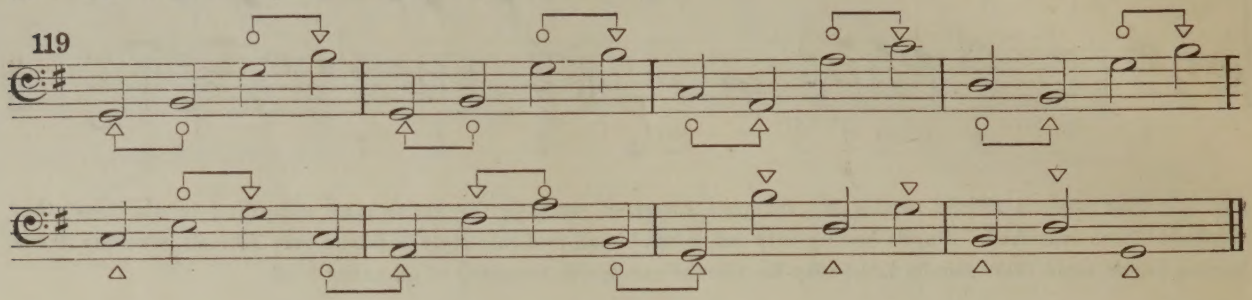


118



In playing the interval of a third on the natural (long) keys with *one* foot, great care must be taken to get the hollow of the foot exactly over the intermediate pedal, otherwise it will be made to speak either by the toe or heel. The foot must be placed rather sideways.

119



EXPRESSION.

105. The organ may be said to be deficient, as an instrument, in two respects; the player cannot vary his tone by the character or force of his touch (as on the pianoforte), nor can he glide from one note to another (as on the violin).

It is evident therefore that the organist who wishes to play with a proper expression of feeling is chiefly dependent on—

(1) The art of phrasing.

(2) The contrast between the *legato* and *staccato* style.

(3) The use of the Swell pedal.

(4) The selection of stops.

The first and second of these sources of expression are but rarely mastered; they may, indeed, be looked upon as a test of the *musicianship* of an organist.

To phrase properly a player must possess not only knowledge but taste; the intentions and meaning of a composer must first be duly appreciated intellectually, and then practically brought out, care always being taken to avoid on the one hand a *weak* performance caused by an insufficiently broad *outline*, and on the other hand an *exaggerated* reading caused by bringing the peculiarities of the composer (or the composer and player mixed) into undue prominence. In the former case the attentive hearer traces too little of the spirit of the author; in the latter too much of the egotism of the player.

In pianoforte music, until quite our own times, very few indications of phrasing and other delicate forms of expression were to be found; and although modern composers have striven to remedy this defect, much still depends on the knowledge and taste of the performer. A comparison between one of Handel's "Suites" and any pianoforte piece by Schumann or Chopin will show the progress made in this direction.

In organ music no corresponding progress can be traced, composers and "arrangers" frequently making the great mistake of giving numerous lists of registers, or indicating combinations of stops, the effect of which varies widely in different instruments.

Much therefore has to be attained by an organist besides merely mechanical skill with fingers and feet, or agility in handling the knobs of stops.

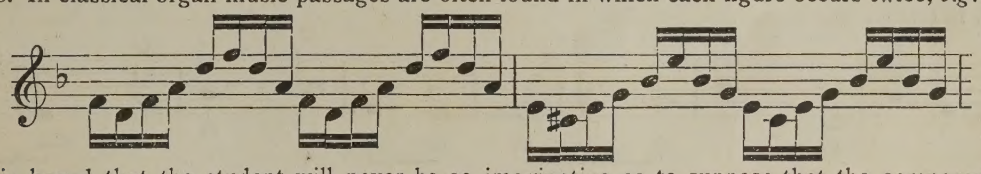
106. In slow movements of an expressive character it is of the utmost importance that the student should aim at something higher than correctness. It will be found that the Swell pedal (if rightly treated) will add largely to the power of phrasing when used in conjunction with the other modes of expression above enumerated; but, on the other hand, the wisest efforts of the fingers to "round a sentence" will be completely frustrated by carelessness in this respect.

107. In playing fugues or other pieces not calling forth the minuter details of expression, care must be taken that the general rendering is broad and dignified. The grandeur or beauty of a fugue consists in the fact that it is constructed so as to be of constantly increasing interest from beginning to end. Several important considerations present themselves if this be borne in mind. First, the full power of the instrument should be judiciously reserved for the climax (probably the *stretto*); and although the enunciation of the subject should not be soft or weak, enough power should be kept in hand to enable the player to add to the strength of tone from time to time. It need hardly be pointed out that nothing but a most vicious taste could suggest the giving out of a fugue-subject on a *tuba mirabilis* or any other "fancy" stop.

Next, it is certain that if the interest of a fugue is to go on increasing, the *episodes* (those portions of a fugue which do not actually include the working out of the subject) must not be severed from the context by being played on a different manual, or with a strongly contrasted quality of tone. The notion that a fugue is made more interesting by suddenly skipping from the Great Organ in order to play an episode on the Swell Manual (with much pumping) cannot be too strongly condemned. Thus to cut a slice out of the middle of the work completely destroys its unity of purpose. It sometimes may happen that the episodes require even greater power and vigour of style to keep them up to the level of the fugue.

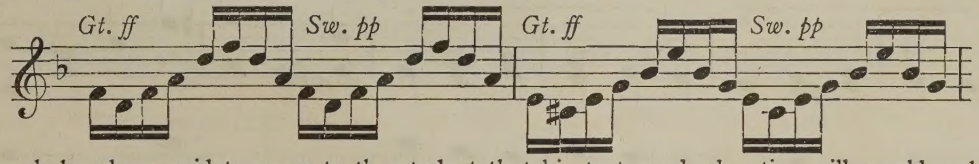
Although these remarks apply to the majority of fugues, the reader is of course aware that there are many others of so calm and melodious a character as to require special treatment, such, for example, as the beautiful "short" Fugue in E minor by Bach. Mendessohn's Fugue in G major is by some organists brought to a *pianissimo* ending; in this and many other cases the student will have to exercise his judgment.

108. In classical organ music passages are often found in which each figure occurs twice, *e.g.*:—



&c.

It is hoped that the student will never be so imaginative as to suppose that the composer intended to represent by this means a series of remarkable *echoes*. His good sense should protest against the following caricature of these passages, although it calls forth rapidity of bodily action:—



&c.

Enough has been said to prove to the student that his taste and education will mould and stamp their mark on his organ-playing; and any want of refinement will be quickly traced by the best class of hearers, even if he should succeed in making himself an agile gymnast of the first order.

Lastly, in organ-playing, as in every other branch of art, the *object* for which the labour of study is undertaken and persevered in will assuredly influence the result. The performer whose motive is selfish pleasure or a love of laud will drift into a style of playing reflecting his frame of mind; but he who works on with purity of purpose, realising the nobility of his study, and, better still, desiring to devote his studies to some high aim, will find that he has unknowingly woven a chain which will bind his hearers to him in a bond of mutual sympathy.

CONCLUSION.

The following five short pieces are intended to represent different styles of organ music, and give the pupil a wider sphere of practice while his teacher is selecting a course of organ pieces for him from the works of the best authors.

In No. 120 (Allegretto in F) he will find opportunities of phrasing and using the Swell pedal with good effect.

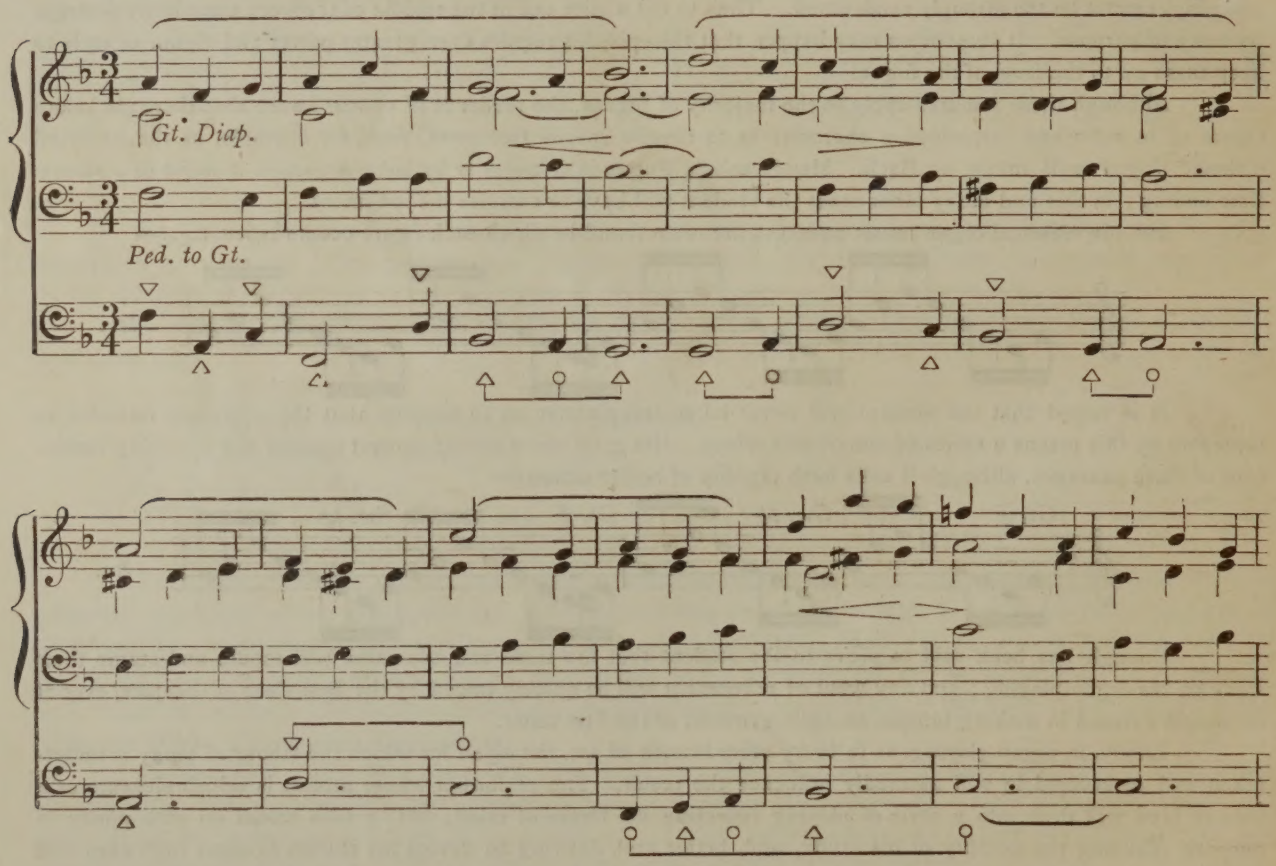
In No. 121 (Andante in A) he will, in addition to the above, be able to practise the playing of a melody with the left hand while the right has a free accompaniment.

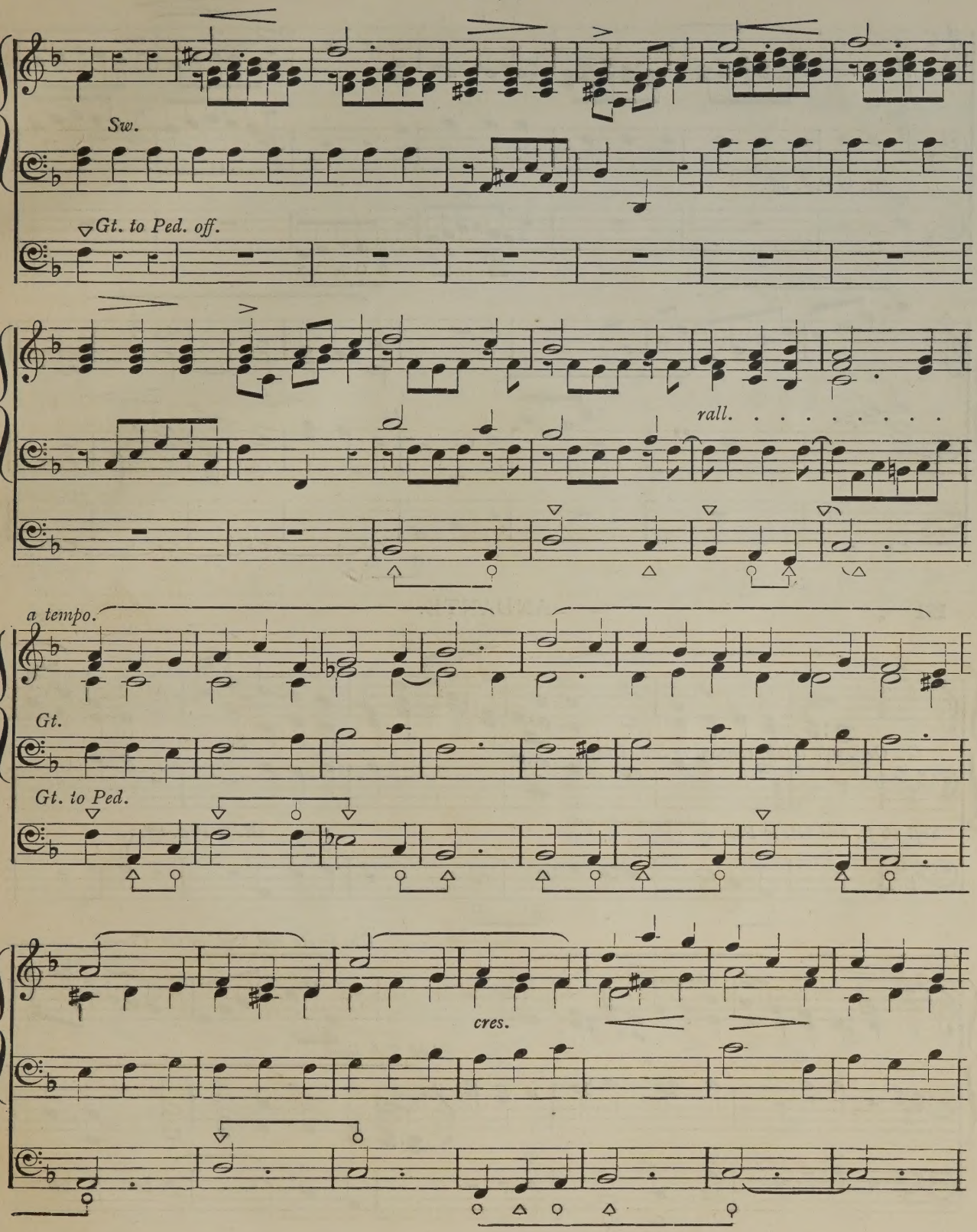
In No. 122 (Fantasia in E minor) are *staccato* chords which must be played freely from the wrist, and wrist only, all the fingers being taken off the keys precisely together; it also contains passages which must be passed from one hand to the other without any break or inequality.

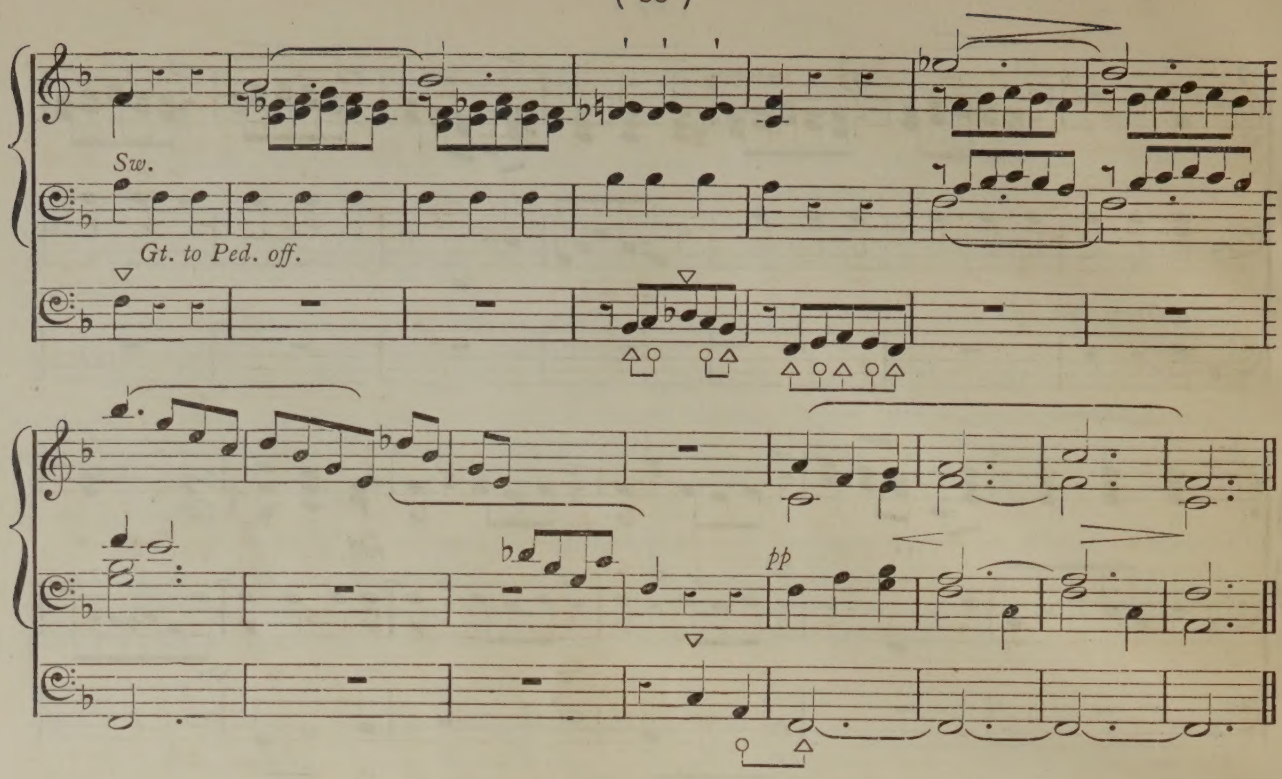
In No. 123 (Adagio in E flat) he will find more scope for management of stops, &c., than in the preceding movements.

In No. 124 (Prelude and Fughetta) he will find that rapid changes of fingers are necessary in order to obtain a true *legato*. In the *coda* (*presto*) it is of importance that the hands should be so mutually supporting and equally balanced as to make it sound as if one hand only were used. As is usual in passages of this kind, the tails of notes to be played with the right hand are turned up; those to be played with the left, down.

120 ALLEGRETTO. J. S.



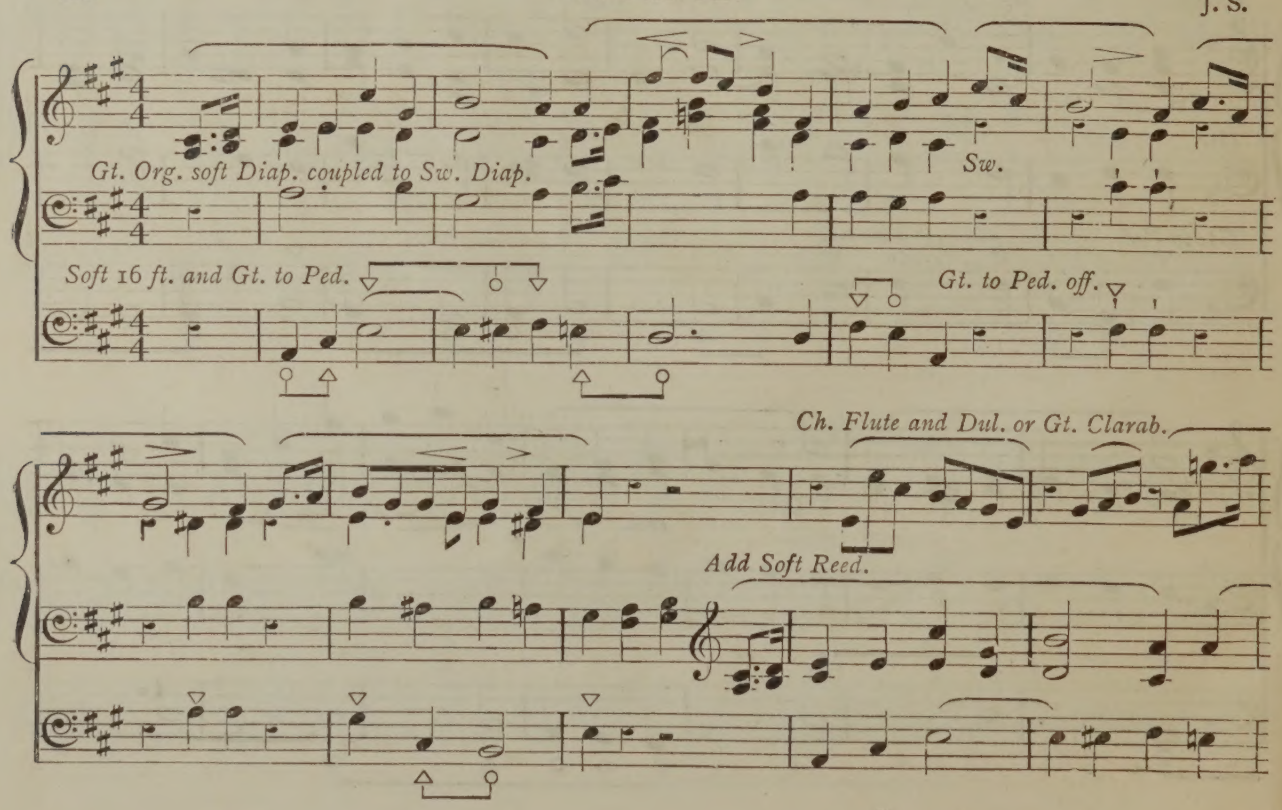

Sw.
Gt. to Ped. off.
rall.
a tempo.
Gt.
Gt. to Ped.
cres.

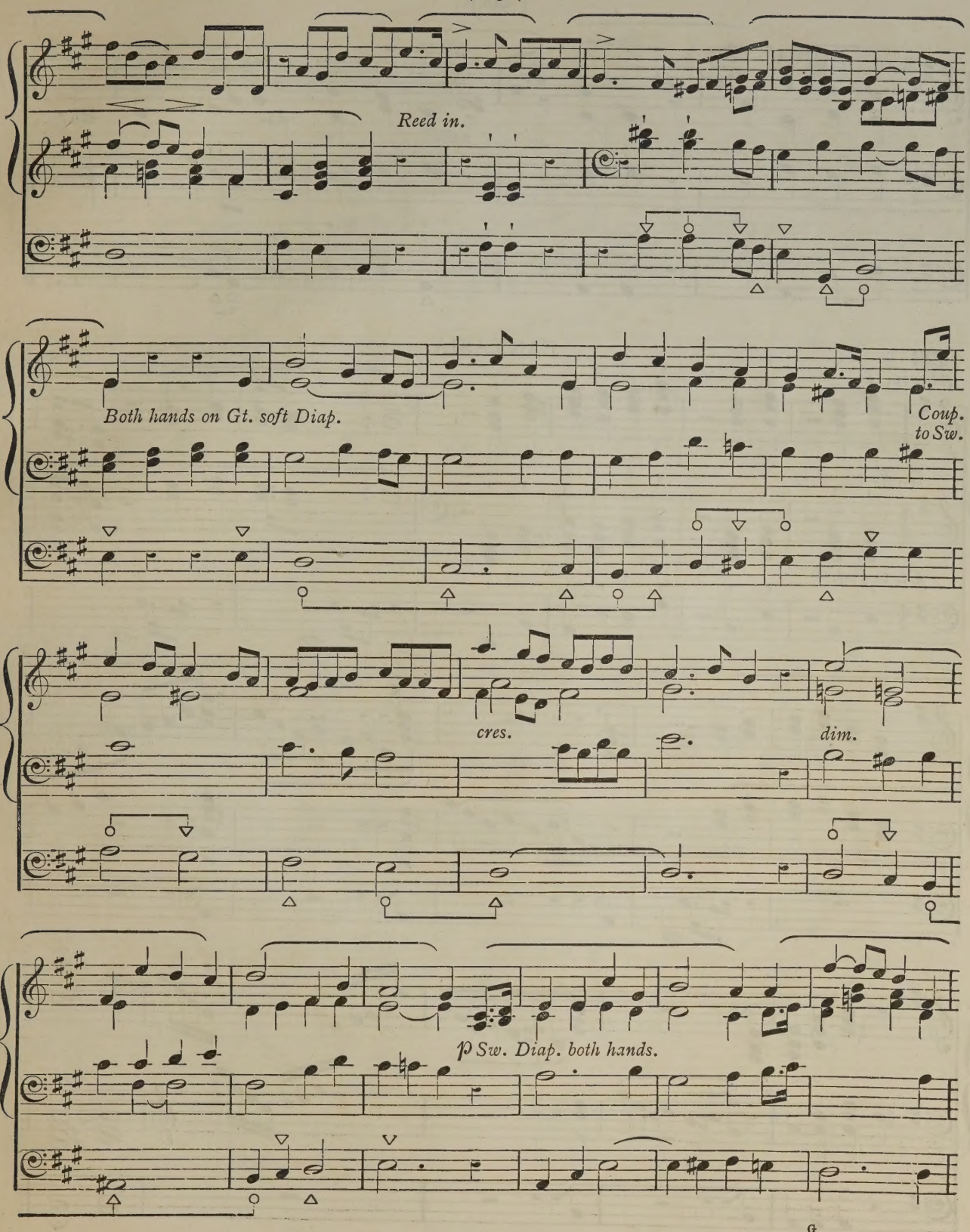


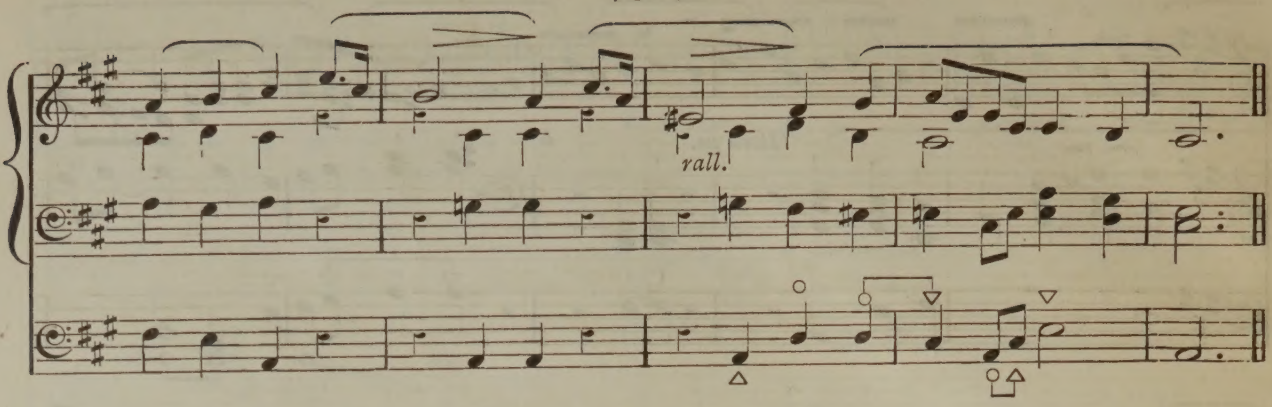
121

ANDANTE.

J. S.



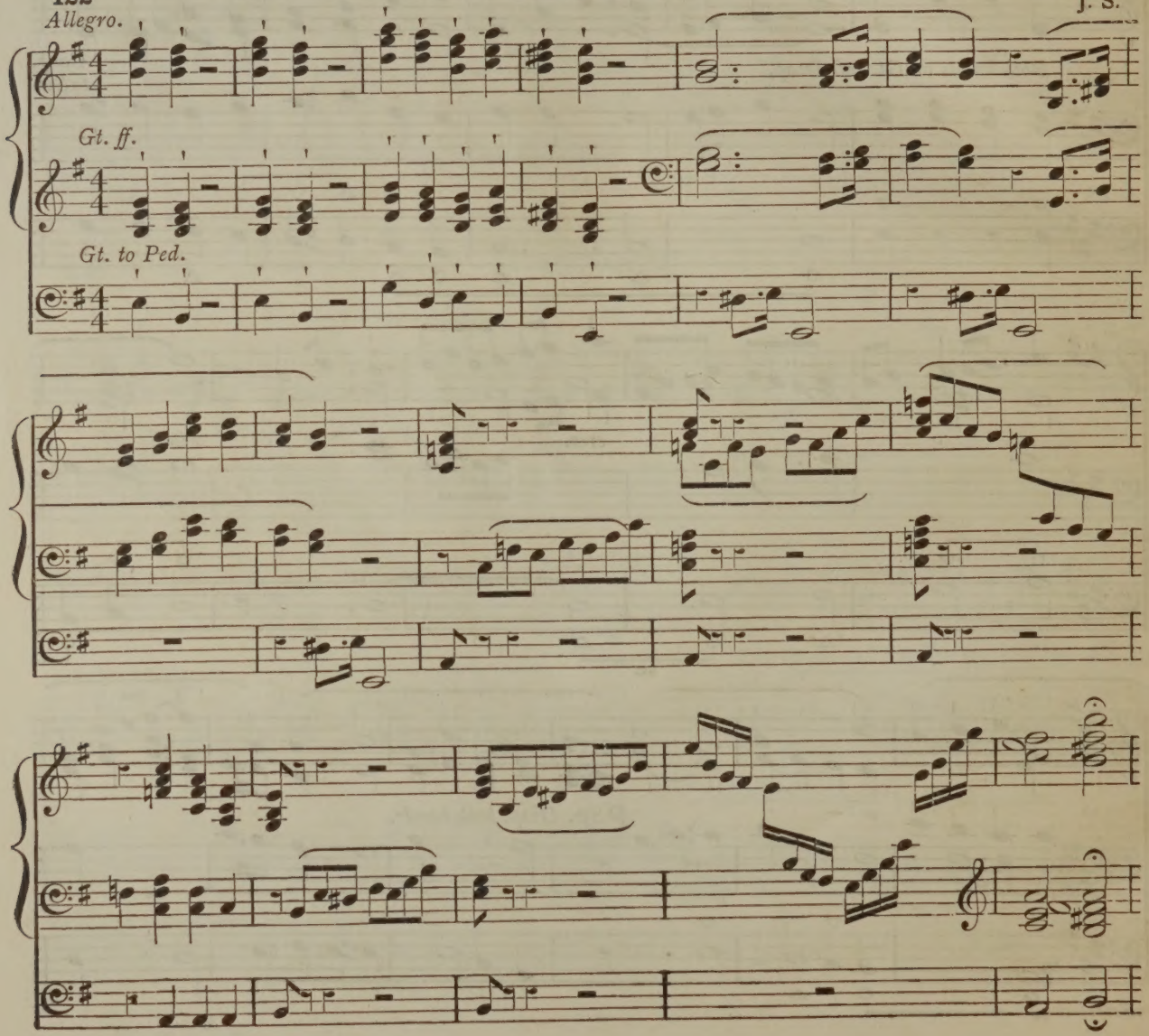

Reed in.
Both hands on Gt. soft Diap.
Coup. to Sw.
cres.
dim.
p Sw. Diap. both hands.

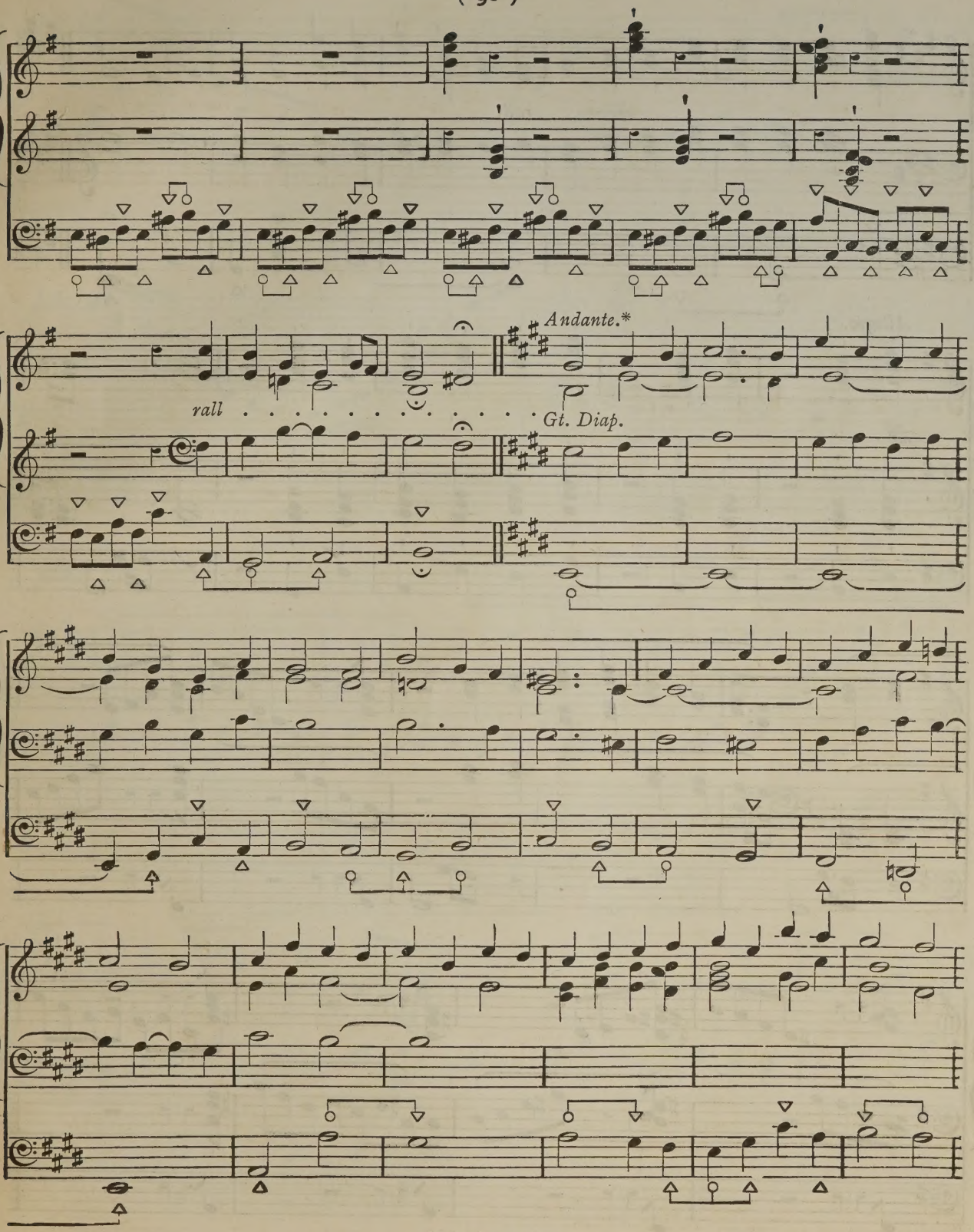


122

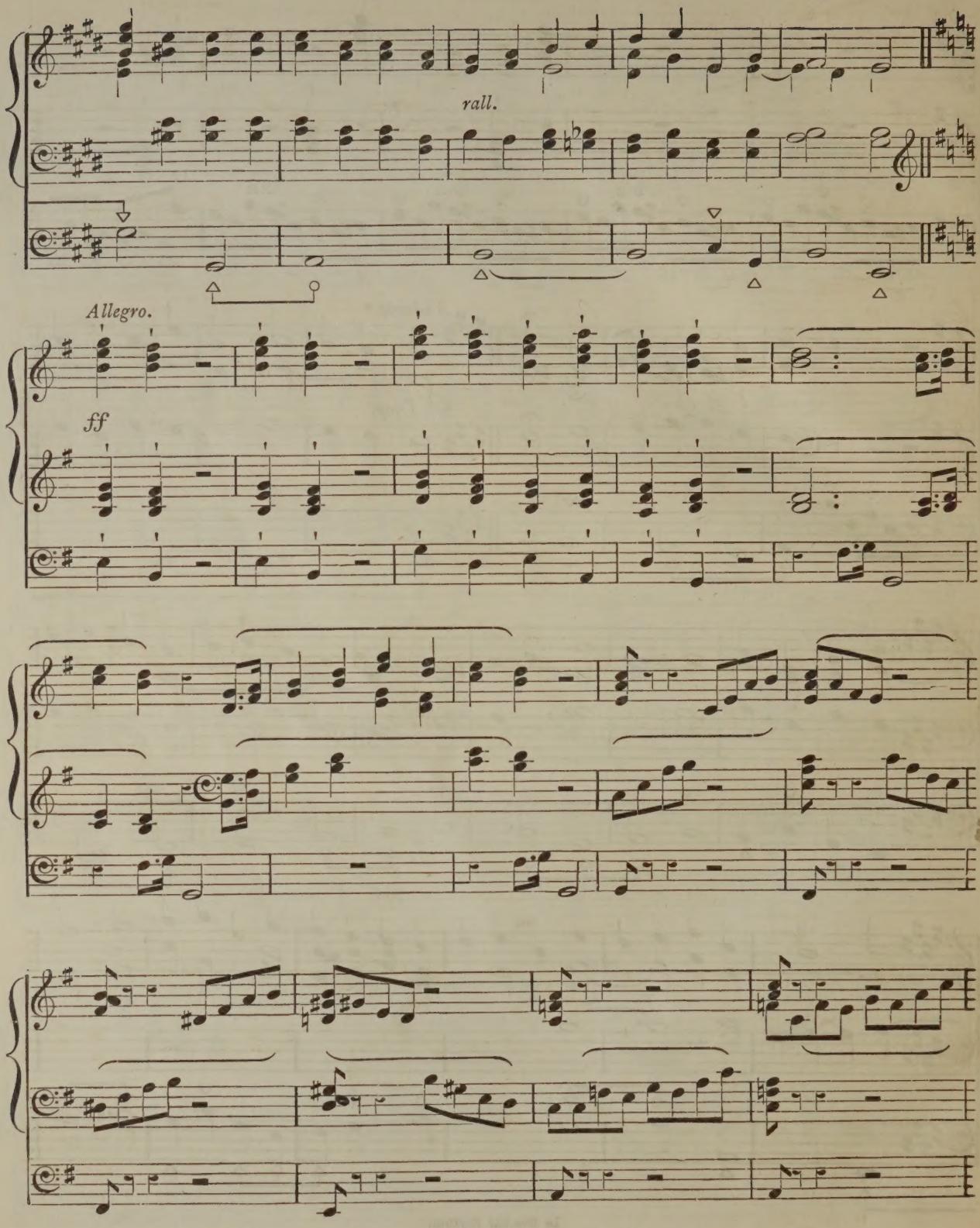
FANTASIA.

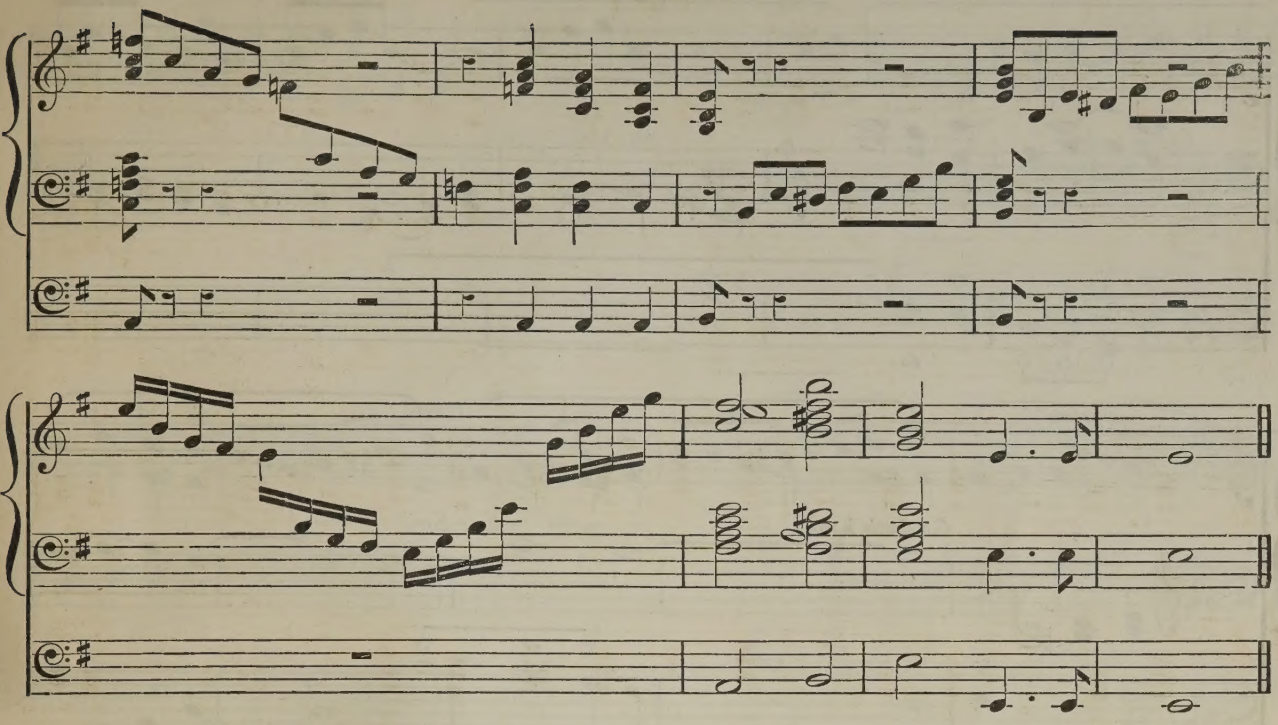
J. S.



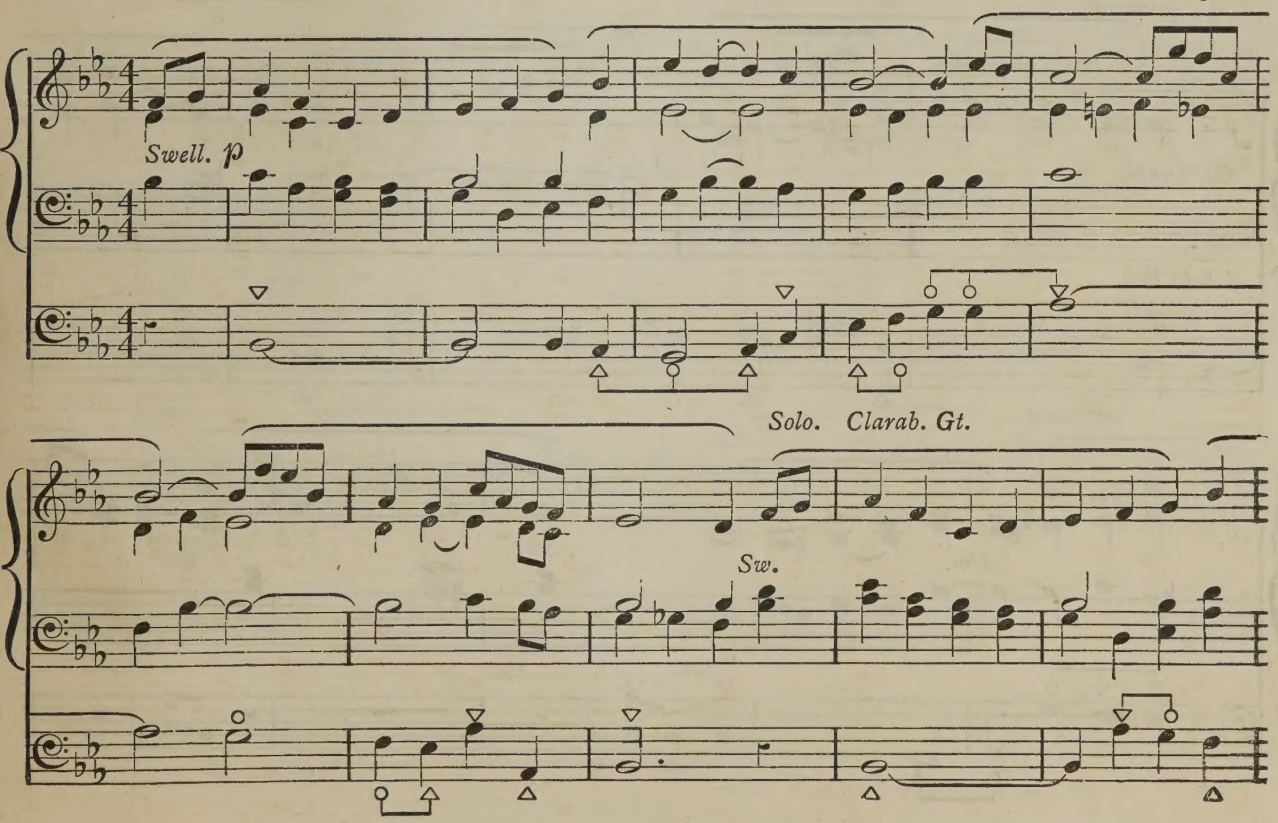


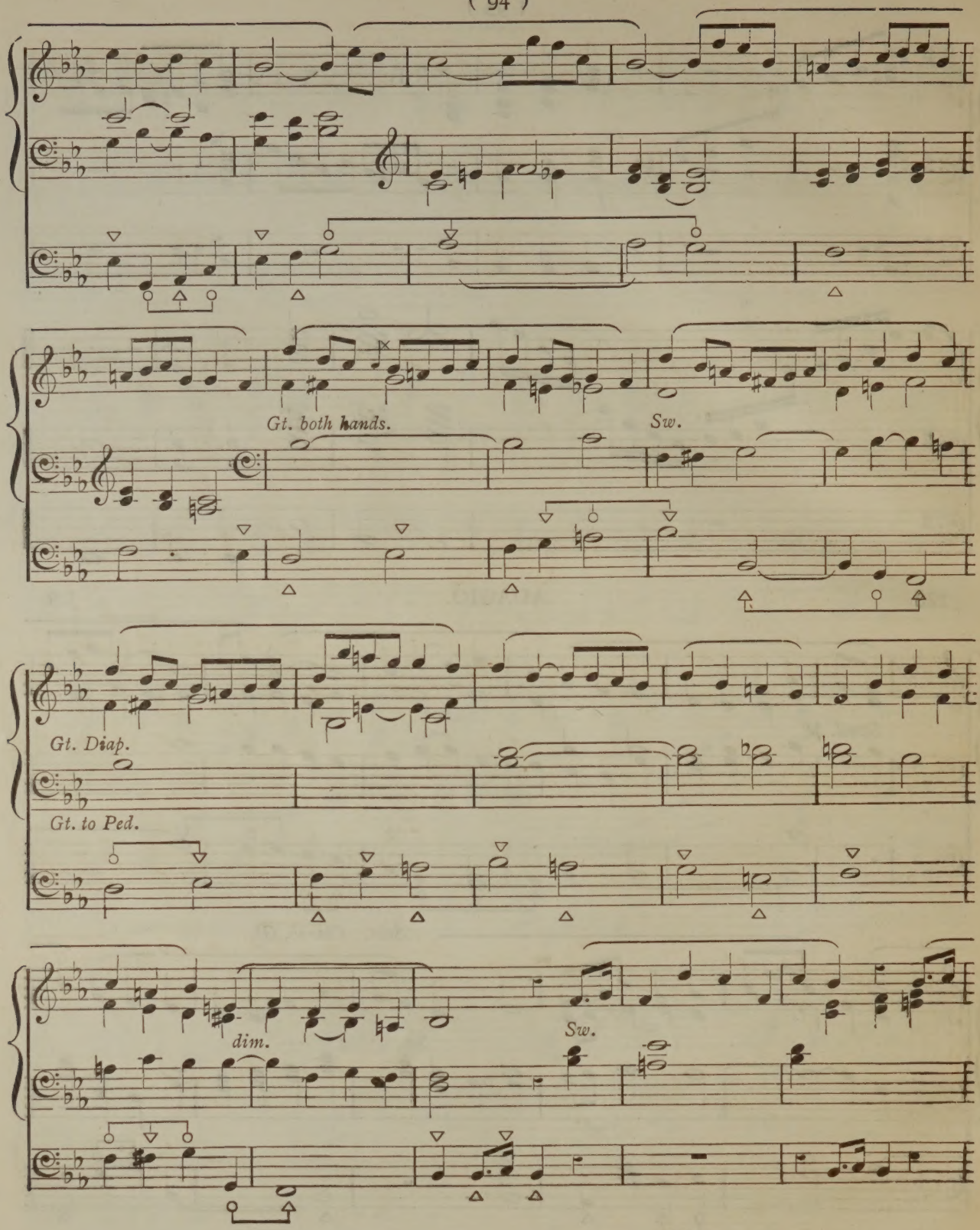
In five-bar rhythm.

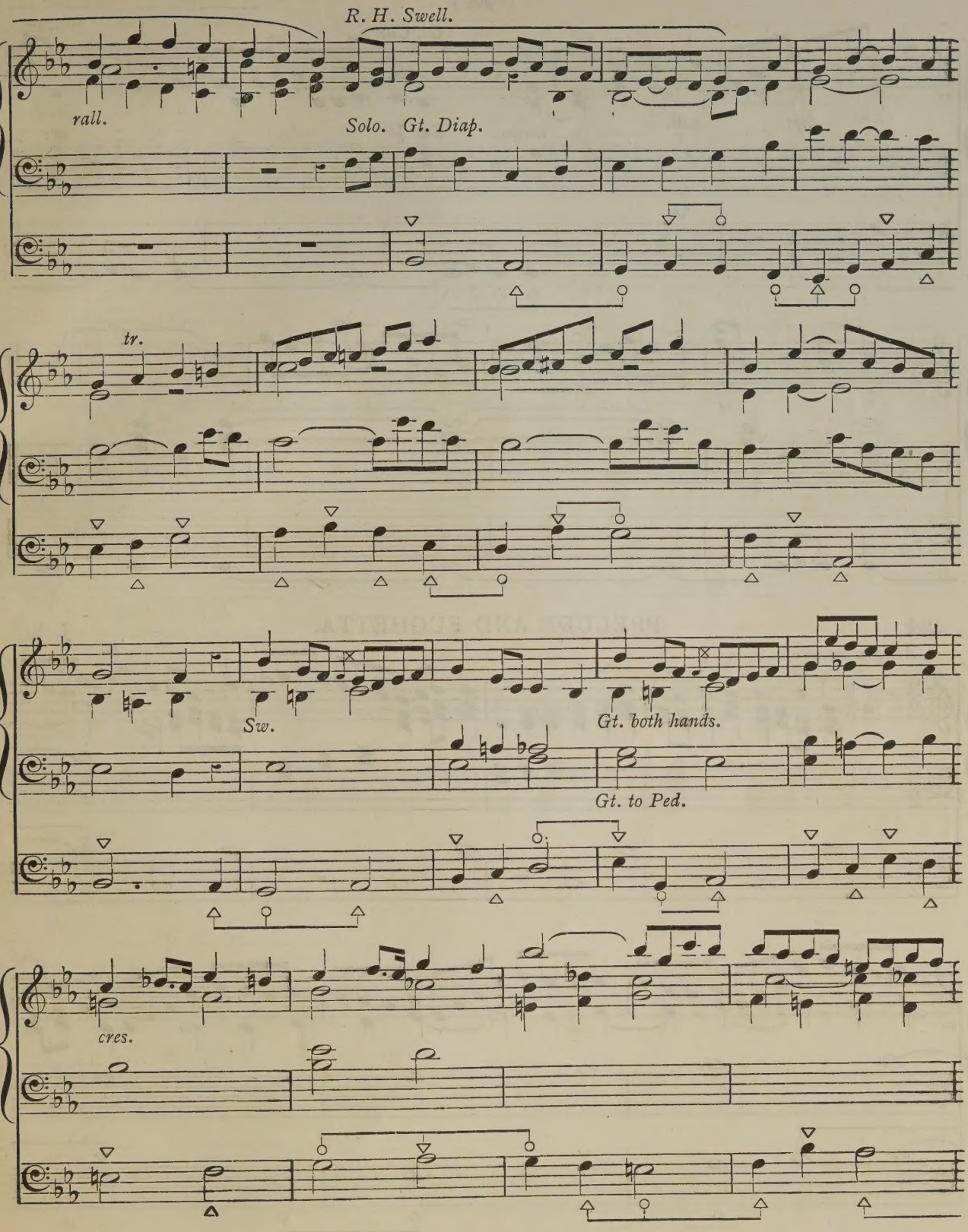

rall.
Allegro.
ff

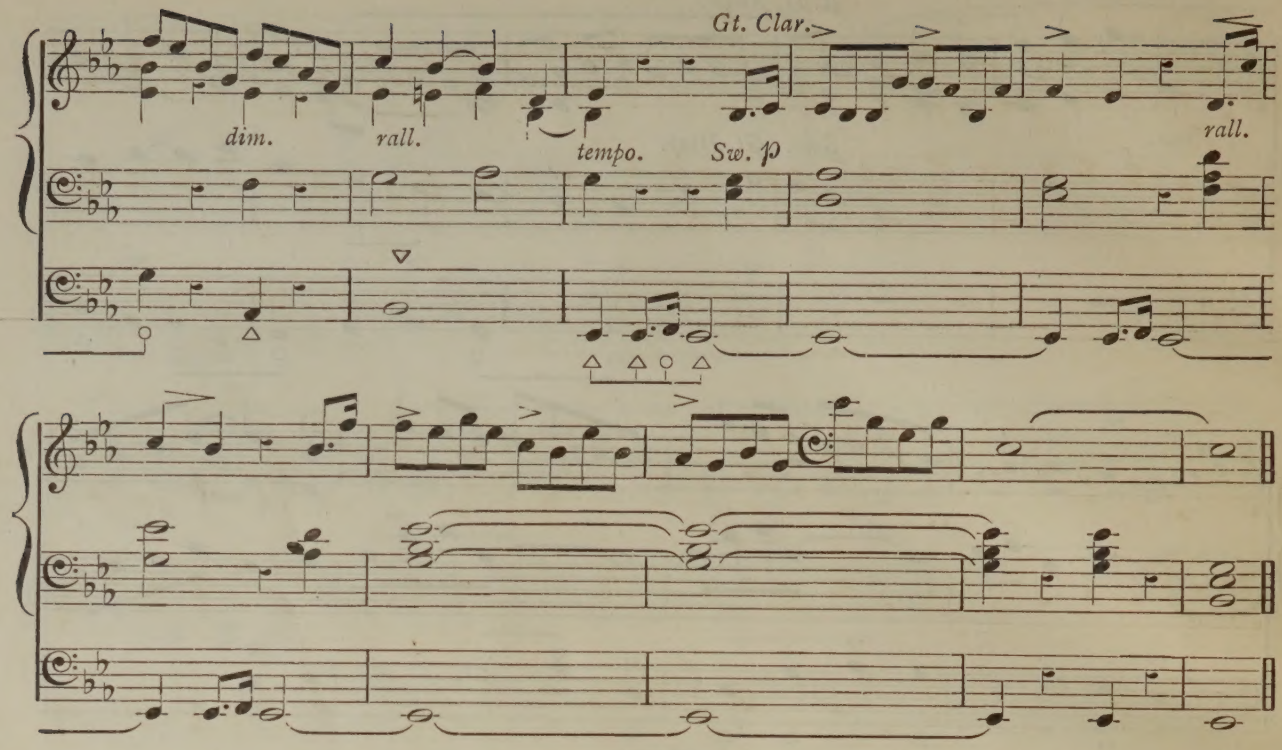


123 ADAGIO. J.S.

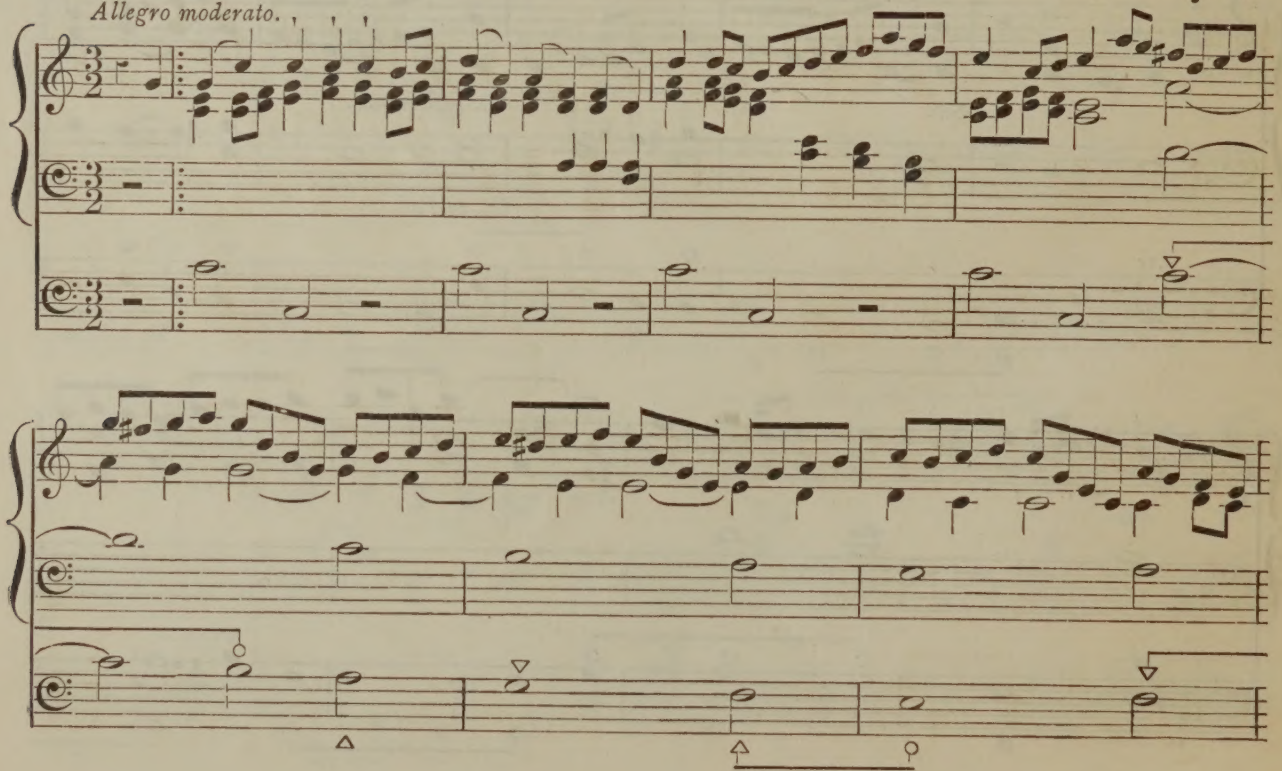


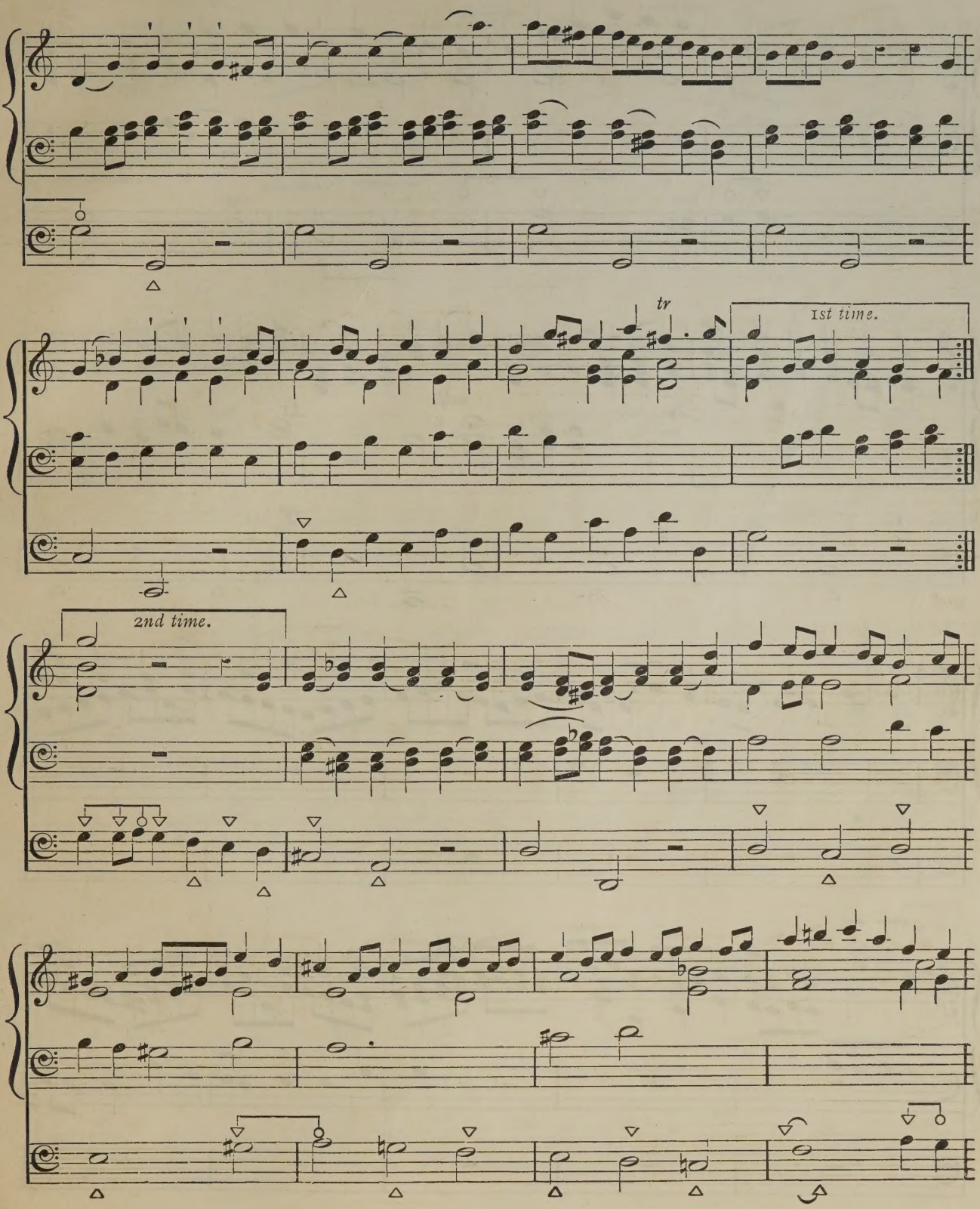

Gt. both hands.
Sw.
Gt. Diap.
Gt. to Ped.
dim.
Sw.

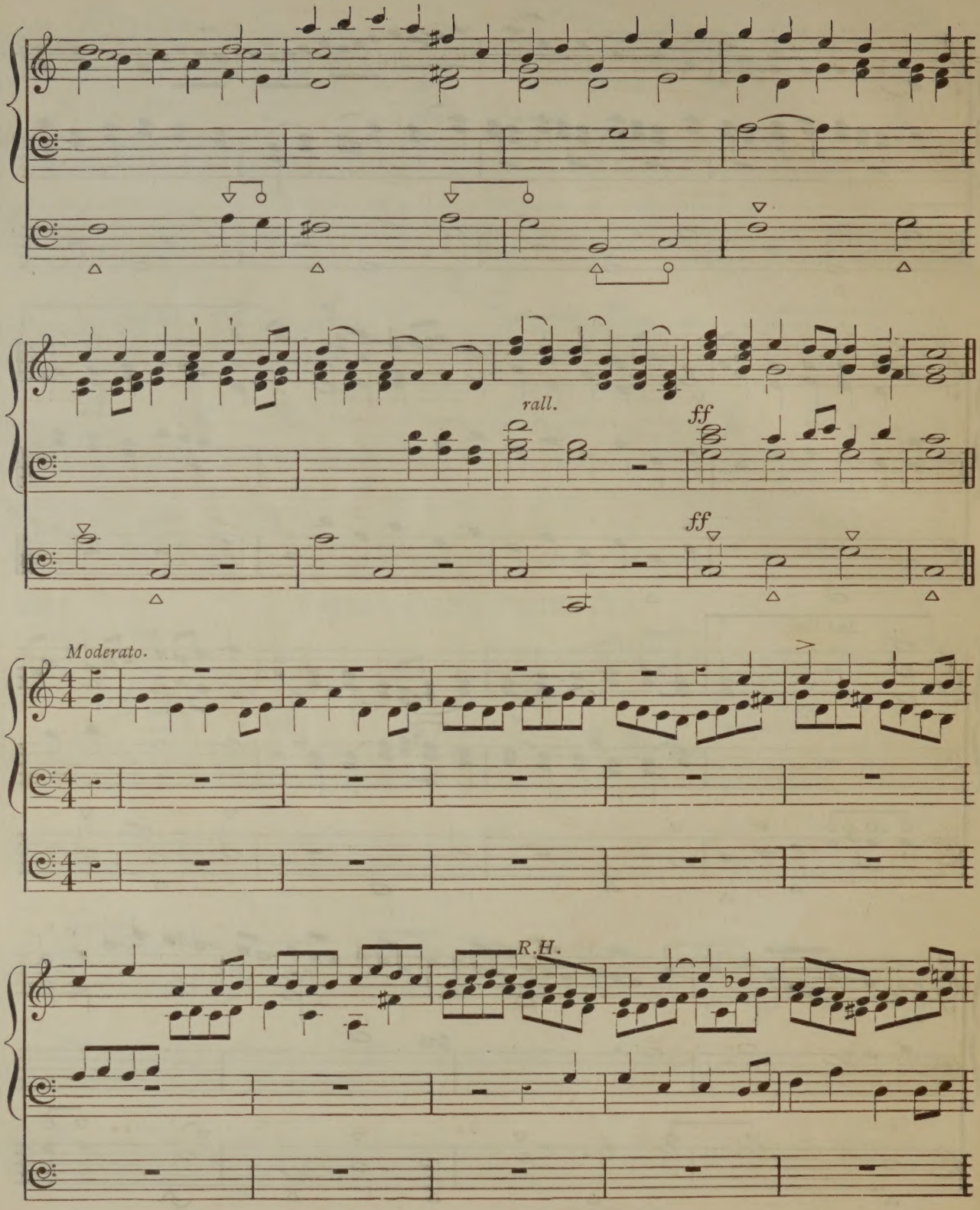

R. H. Swell.
rall.
Solo. Gt. Diap.
tr.
Sw.
Gt. both hands.
Gt. to Ped.
cres.

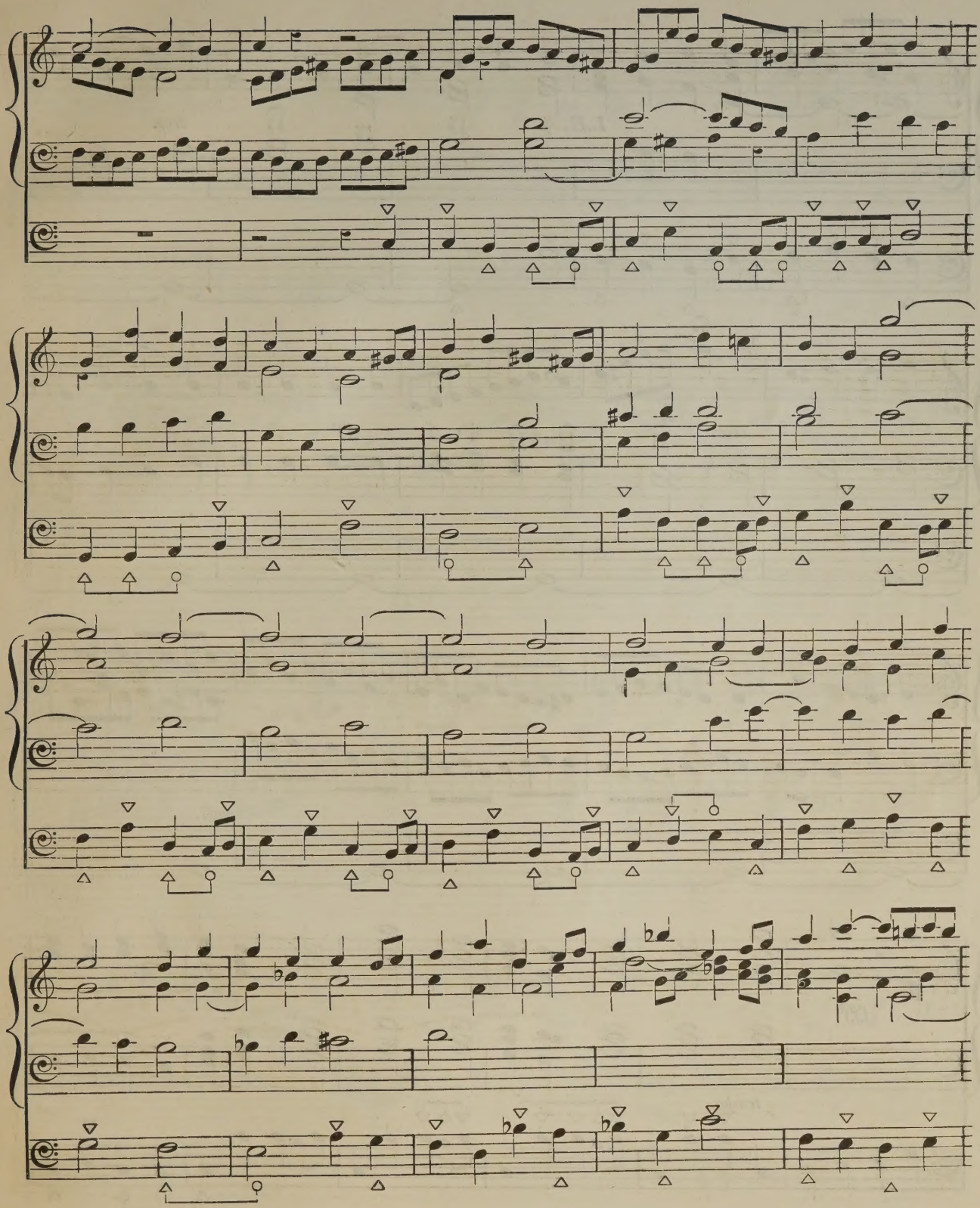


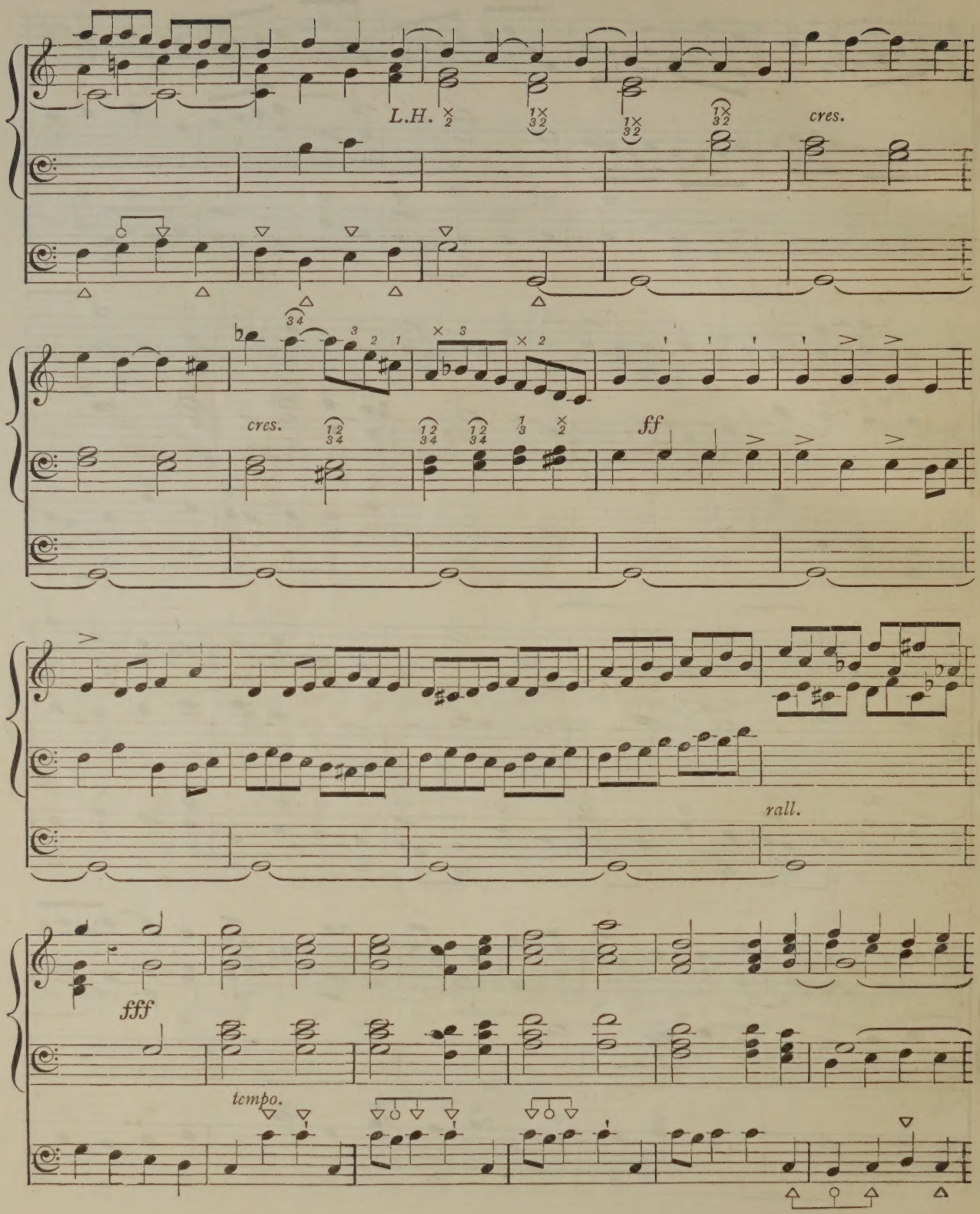
124 PRELUDE AND FUGHETTA. J. S.

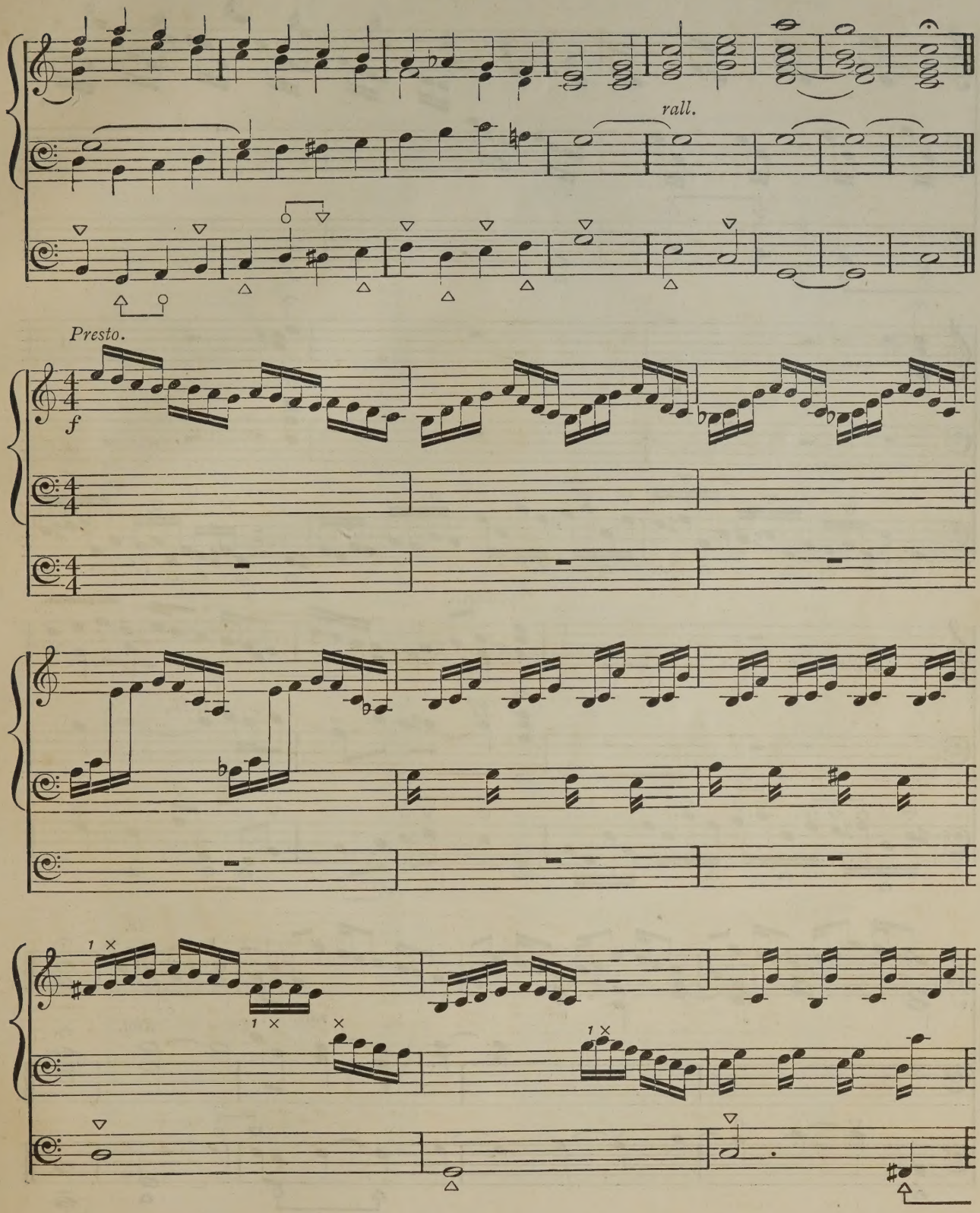


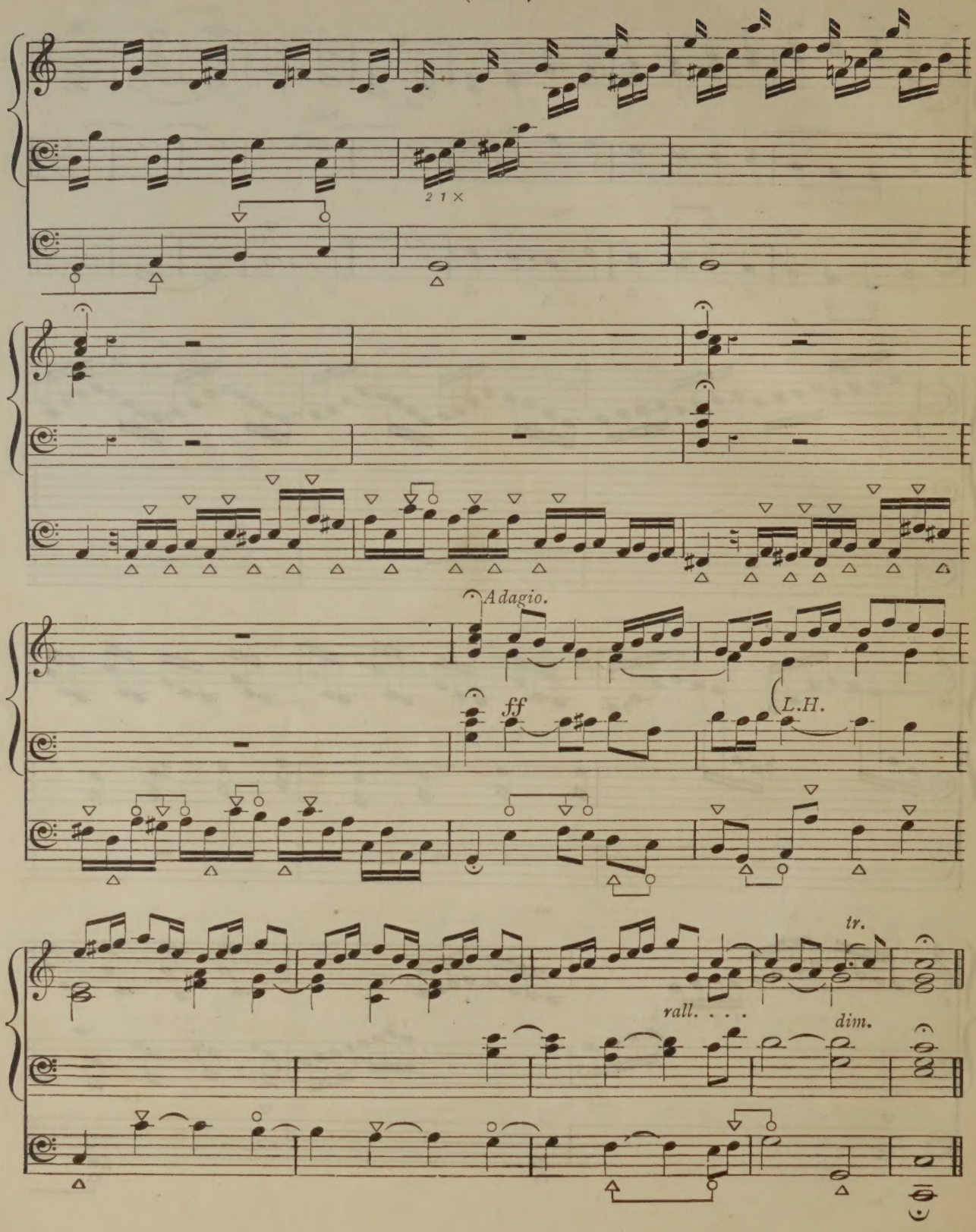

tr
1st time.
2nd time.


rall.
ff
ff
Moderato.
R.H.




L.H.
cres.
cres.
ff
rall.
fff
tempo.


rall.
Presto.
f
1 ×
1 ×
×
1 ×


2 1 ×
Adagio.
ff
L.H.
tr.
rall. . . .
dim.

THE ORGANIST'S COMPANION

A COLLECTION OF VOLUNTARIES,

SELECTED AND ARRANGED BY

SIR JOHN GOSS,

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No. 1.

Agnus Dei (Mass)	Jomelli
Dona Nobis, in D (Sixth Mass)	Mozart
Introduction	Rink
Lord, remember David	Handel
Introduction	Goss
Fugue, in C, on the Letters of his Name	C. P. E. Bach
Et rege eos (Te Deum)	Graun
Introductory Voluntary, in F	Rink

No. 2.

The marvellous work (Creation)	Haydn
Amplius lava me (Miserere)	Sarti
Introduction	Goss
Fugue, in E flat	Albrechtsberger
Prepare the Hymn (Occasional Oratorio)	Handel
Dead March in Saul	Handel
Holy, holy (Last Judgment)	Spohr

No. 3.

Introduction and Fugue in E flat	J. S. Bach
O, how sweet	Kent
Introduction	Rink
But thou didst not leave (Messiah)	Handel
Credo, in B flat (First Mass)	Haydn
Introductory Voluntary, in F	Mozart

No. 4.

Teach me, O Lord (Mount Sinai)	Neukomm
Now vanish before the holy beams	Haydn
Sanctus Dominus, in D (Requiem)	Mozart
Holy, holy (Redemption)	Handel
How excellent (Saul)	Handel

No. 5.

Praise ye the Lord / Glorify the Lord... (Mount Sinai)	Neukomm
Fac ut portem (Stabat Mater)	Boccherini
Quoniam, in B flat (First Mass)	Haydn
Agnus Dei, in G	Naumann
Angels, ever bright and fair (Theodora)	Handel
Introductory Voluntary, in D	Rink

No. 6.

Then round about (Samson)	Handel
Benedictus, in E flat (Tenth Mass)	Mozart
Introductory Voluntary, in D	M. Haydn
Forty-two Interludes, in the principal major keys	Goss

No. 7.

Æterna fac ... / In te, Domine ... (Te Deum)	Haydn
Benedictus, in B flat (Third Mass)	Eybler
Et vitam venturi	Righini
Benedictus, in G	Righini
Concluding Voluntary, in C	Dröbs

No. 8.

Introductory Voluntary, in G	Rink
Benedicta et venerabilis (Graduale)	M. Haydn
Unendlicher! Gott unser Herr / Wie ruhmvoll ist dein Nam'	Spohr
Lauda Sion	Cherubini
Benedictus, in G (First Mass)	Hummel
Around let acclamations ring (Athaliah)	Handel

No. 9.

Benedictus, in A (First Mass)	Mozart
Introduction	Goss
Fugue, in G	Albrechtsberger
Quoniam tu solus / Cum Sancto Spiritu	Righini
Gloria in excelsis	Pergolesi
Leicht ist das Grab das Weltgericht	Schneider

No. 10.

The trumpet shall sound (Messiah)	Handel
Gloria in excelsis, in C (Second Mass)	Mozart
With verdure clad (Creation)	Haydn
Fugue, in A	Padre Martini

No. 11.

Quoniam, in E flat... / Cum Sancto Spiritu (Second Mass)	Hummel
I know that my Redeemer liveth (Messiah)	Handel
Et Resurrexit, in C (First Mass)	Mozart
Te gloriosus (Te Deum)	Graun
Qui tollis, in A (Second Mass)	Haydn

No. 12.

Gloria in excelsis, in B flat (First Mass)	Haydn
Agnus Dei, in F (First Mass)	Mozart
Quoniam tu solus, in D (Third Mass)	Haydn
Kyrie Eleison, in C (First Mass)	Mozart
Fixed in his everlasting seat (Samson)	Handel

No. 13.

Gloria, in C (Twelfth Mass)	Mozart
Et incarnatus, in E flat	Cherubini
Be peace on earth (Palestine)	Dr. Crotch
Freuet euch alles (Tod Jesu)	Graun
Kyrie, in G (Twelfth Mass)	Mozart
Gloria, in F	Cherubini

No. 14.

O Lord our Governor (I Salmi)	Marcello
We will rejoice (Anthem)	Dr. Croft
Lauda Sion, in B flat	Naumann
Solemn March, in E flat	Dr. Boyce
O, thou eternal God (Crucifixion)	Spohr
Lead on, lead on (Judas Maccabæus)	Handel
Slow Movement, in C	Beethoven

No. 15.

Some put their trust in chariots (Anthem)	Dr. Croft
Con inni e cantici (Jefte in Masfa)	Barthélémon
Sancta Maria, in F	Mozart
Introduction and Fugue in E flat	Rink
Et expecto resurrexionem and Et vitam (Fugue)	Cherubini

No. 16.

When the ear heard (Funeral Anthem)	Handel
How are the mighty fallen / He delivered the poor (Funeral Anthem)	Handel
Sanctus in A (Mass in C)	Beethoven
Benedictus, in F	Caldara
Qual anelante (I Salmi)	Marcello

No. 17.

Benedictus, in B flat (Third Mass)	Mozart
Slow Movement, in E	Hummel
Kyrie, in B flat (First Mass)	Haydn
Introduction	Rink
Dona nobis (Third Mass)	Eybler
Introductory voluntary, in E	Rink
Voluntary	Mozart

No. 18.

Recordare, in F (Requiem)	Mozart
We never will bow down / We worship God (Judas Maccabæus)	Handel
Perchè m' hai derelitto (Seven Last Words)	Haydn
And if to death (Susanna)	Handel
Cum Sancto Spiritu / In gloria Dei (Fugue) (Fifth Mass)	Haydn

No. 19.

Virgin Madre (Seven Last Words)	Haydn
There is a river (I Salmi)	Marcello
Overture to Saul (1st movement)	Handel
Adagio, in E (from Op. 2)	Beethoven
Et qui viribus (Fugue)	Hasse

No. 20.

Andante, in D (from a Sinfonia)	Mendelssohn
Achieved is the glorious work (Creation)	Haydn
Hallelujah, Amen (Judas Maccabæus)	Handel
Andante, in F	Mozart
Gloria Patri (Service in A)	Dr. Croft
Introductory Voluntary, in C	Rink

No. 21.

Andante, in A minor	Mendelssohn
Sing unto God (Anthem)	Greene
Aria, in A	Hummel
Introduction and Air (Des Heilands Letze Stunde)	Spohr
Larghetto in A (Sinfonia in D)	Beethoven
Occasional Overture (1st two movements)	Handel

No. 22.

Kyrie in G (Fugue from a Mass)	Naumann
Slow Movement in C (from Op. 13)	Beethoven
De torrente in via (Dixit Dominus)	Romberg
March from the Occasional Oratorio	Handel
Concluding Voluntary, in G (from a Fantasia)	J. S. Bach

No. 23.

Cry aloud and shout	Dr. Croft
Slow Movement, in D (from a Sinfonia in G)	Haydn
Blest are the departed (Last Judgment)	Spohr
Blessing and honour ditto	Spohr
Et incarnatus est (from a Mass)	André

No. 24.

Agnus Dei and Dona Nobis (Tenth Mass)	Mozart
Slow Movement, in G (Sinfonia in D)	Haydn
Adagio (from the Grand Concertos)	Handel
Awake the Harp (Creation)	Haydn
Andante, in E (First Concerto)	Mendelssohn
Allelujah (The King shall rejoice)	Handel

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EDITED BY
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In issuing this series of Music Primers the Editor sees with pleasure the realisation of a desire he has long felt, to place in the hands of teachers and students of music a set of educational works of a high standard at a price so low as to render them attainable by all.

The growing interest in music generally, and rapid spread of its study, so very evident in this country, render it of the utmost importance that the student's first steps in every branch should be directed with skill and based on sound principles. The Editor has kept this object steadily in view, and he believes that each one of these Primers will prove to be as carefully constructed in detail as it is comprehensive in design.

Such a result would have been impossible but for the hearty support and sympathy of those authors, men of known ability in their special branches of art, who have embodied the results of their long and valuable experience in their respective contributions.

While gratefully acknowledging the kindness of these gentlemen, the Editor cannot but express a hope that the Primers may prove as useful to the public, and as beneficial to art, as both authors and publishers have endeavoured to make them.

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ORGAN MANUAL SCALES.

In practising scales, students may do well to note, that each hand takes as a rule two positions to each octave. Broadly speaking, two systems of fingering are required: one in which the short position of three fingers and the long position of five follow each other, in reversed order, owing to the fingers of the two hands being placed in an opposite position with the thumbs nearest together. Five major and five minor scales are thus fingered: C, G, D, A and E. The thumbs meet at the octave, but owing to the contrary position of the hand are played a note apart in the middle of each octave. The second fingers of the two hands, occupying the central position in each case, always come together. The group of two black keys are taken by the fingers 1, 2, and the group of three black keys are played by the fingers 1, 2, 3 of both hands. Owing to the increased number of black keys and their several positions in different scales, the second or exceptional methods of fingering are employed for the scales of B♮, F♯ or G♭, D♭, A♭, E♭, B♭, F, and their tonic minors; and these exceptional fingerings have reference chiefly to the attainment of convenient positions for the thumbs on favourably placed white keys, so the general rule that fingers 1, 2 take the group of two black notes in reversed order in accordance with the contrary position of the hands, and fingers 1, 2, 3 are similarly assigned to the group of three black keys, holds good almost without exception throughout the whole system of scale fingering.

A good understanding of the scale system and a way of securing accuracy in the performance of the diatonic scales will be readily obtained by a careful study at the key-board of the scale maps here given. The figures indicate the number of the notes of each scale measured from the key-note marked 1, and its octave marked 8; and the position of each semitone is indicated by the hyphen (—). The sign + shows the augmented second occurring in the course of the Harmonic Minor Mode.

MAJOR SCALE.

1, 2, 3 – 4, 5, 6, 7 – 8. 8 – 7, 6, 5, 4 – 3, 2, 1.

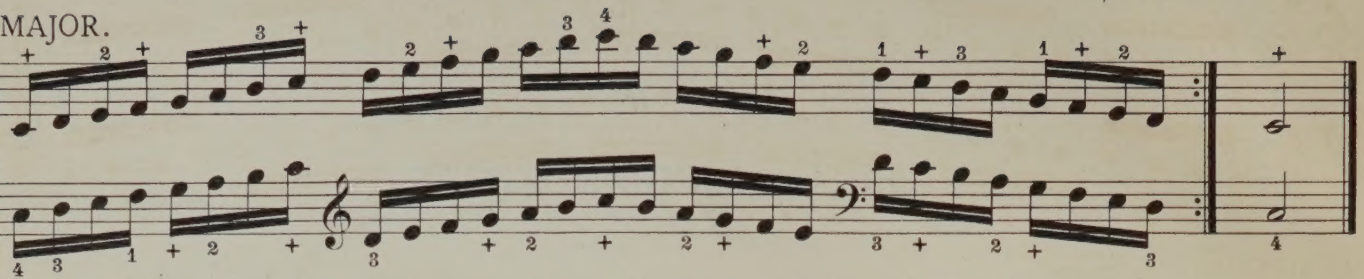
MINOR SCALE (Harmonic).

1, 2 – 3, 4, 5 – 6 + 7 – 8. 8 – 7 + 6 – 5, 4, 3 – 2, 1.

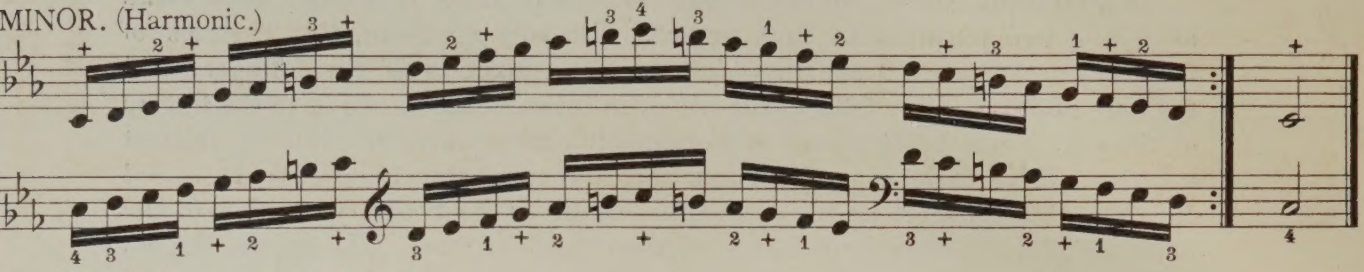
MINOR SCALE (Arbitrary or Melodic).

1, 2 – 3, 4, 5, 6, 7 – 8. 8, 7, 6 – 5, 4, 3 – 2, 1.

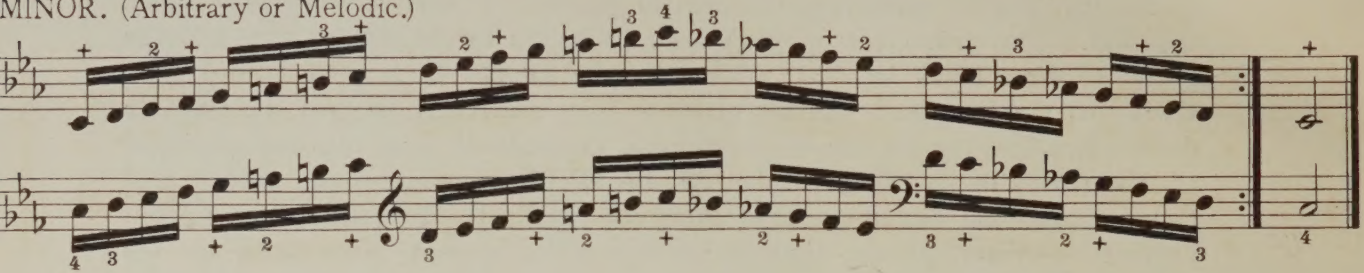
MAJOR.



MINOR. (Harmonic.)

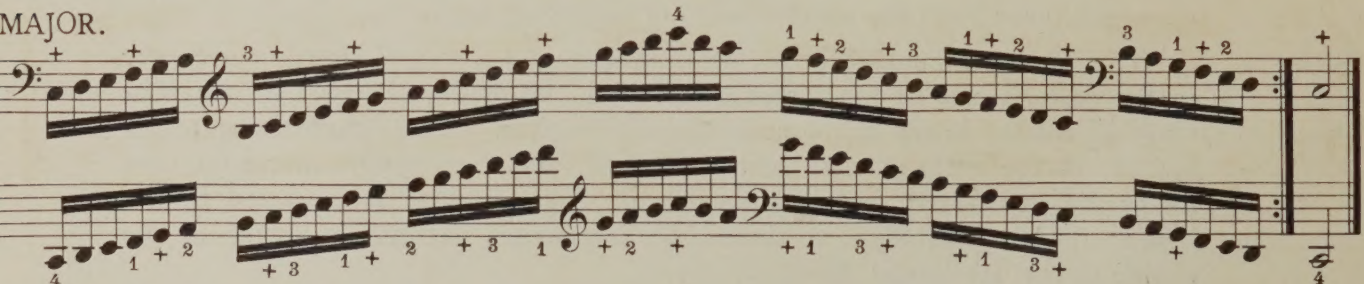


MINOR. (Arbitrary or Melodic.)



hese and all other Scales, may be played over a compass of three octaves, that is in as many keys as upward compass of any given Organ will permit, in the following manner:

MAJOR.



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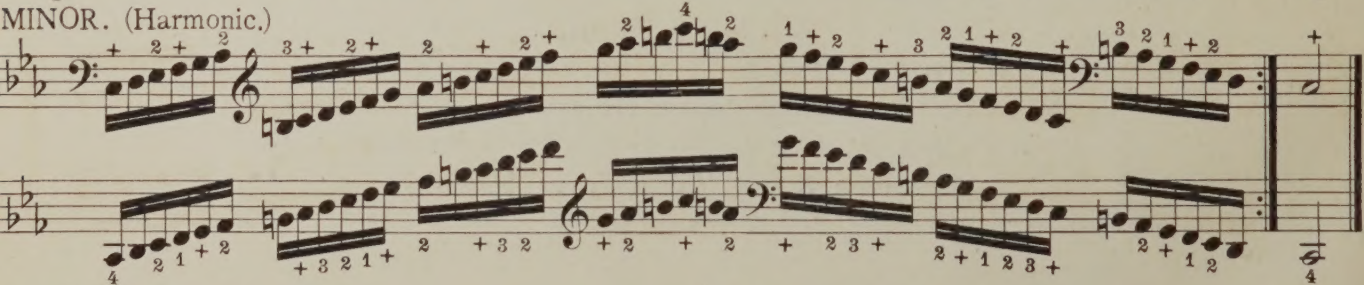

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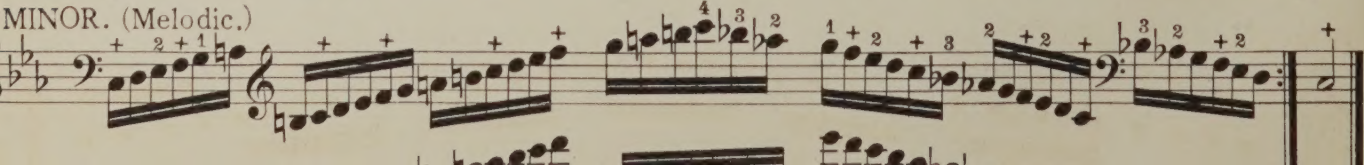
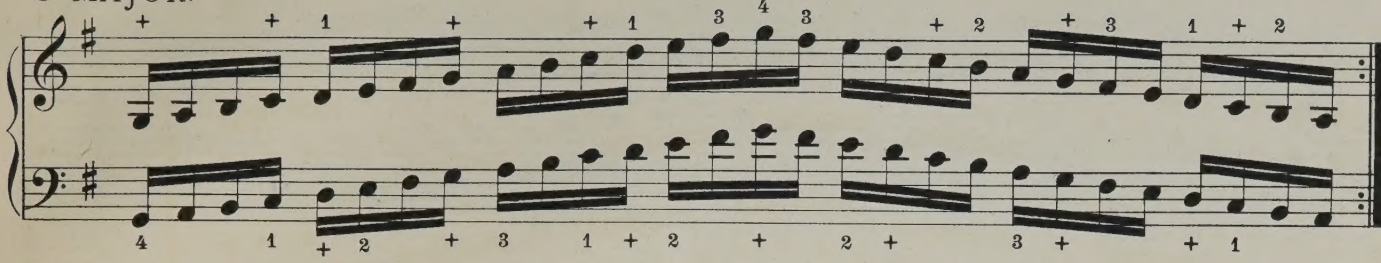


G MAJOR.



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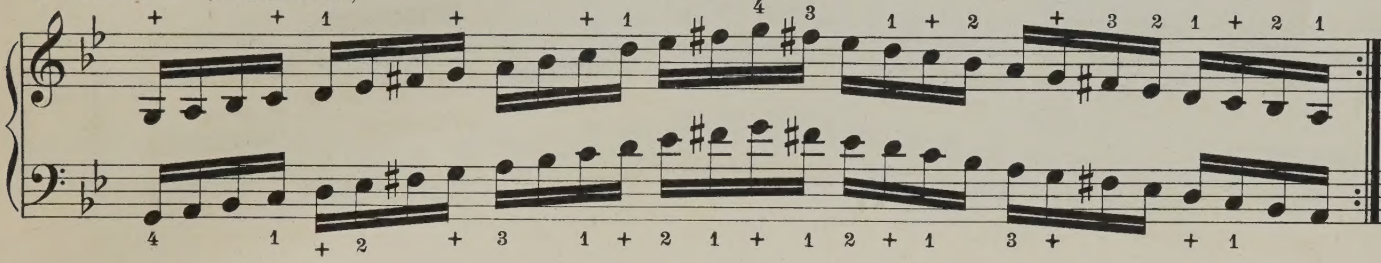

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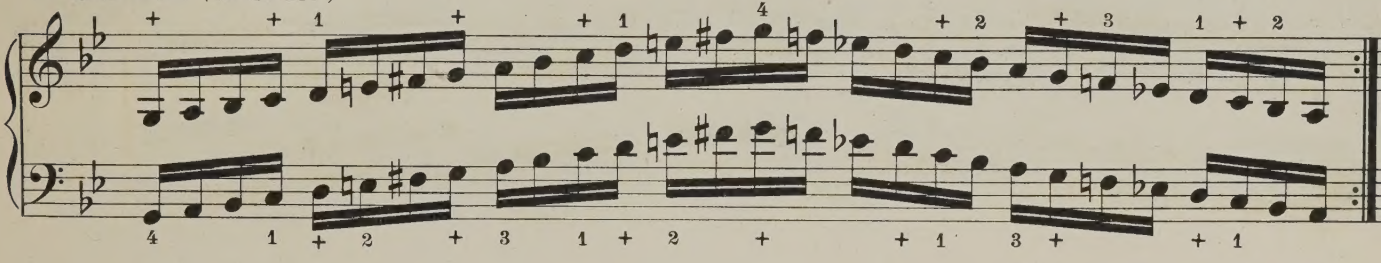

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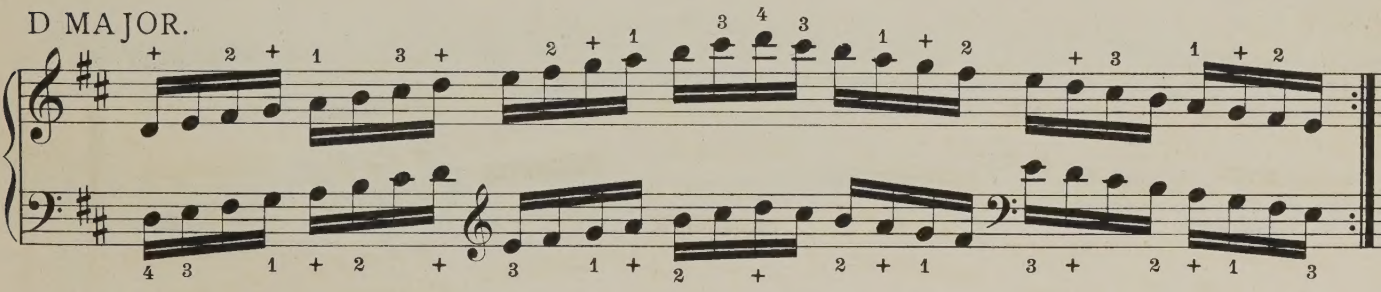

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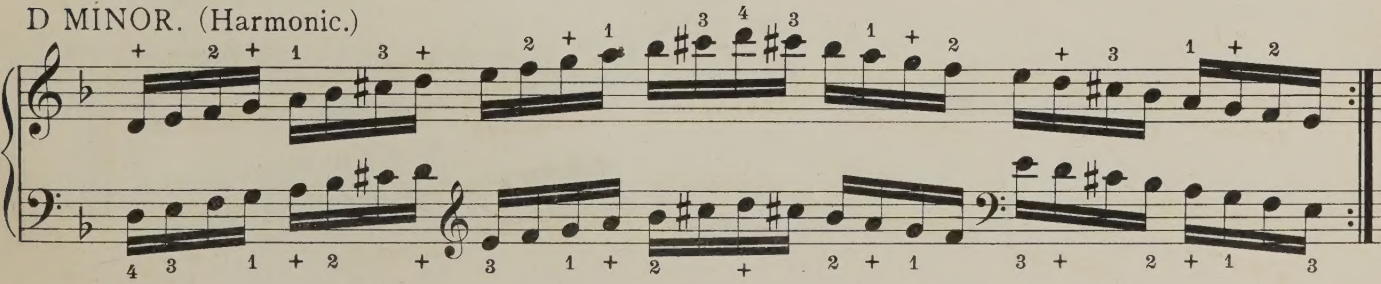

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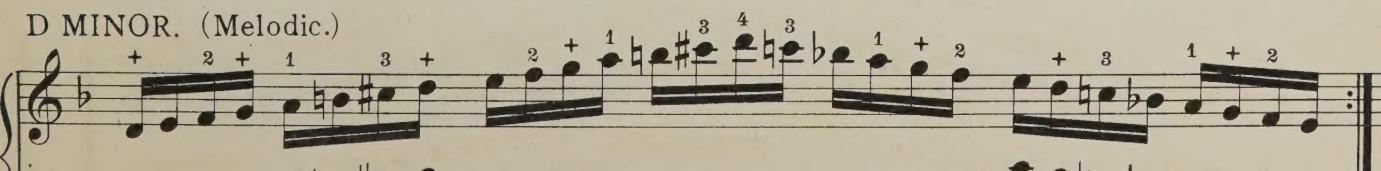
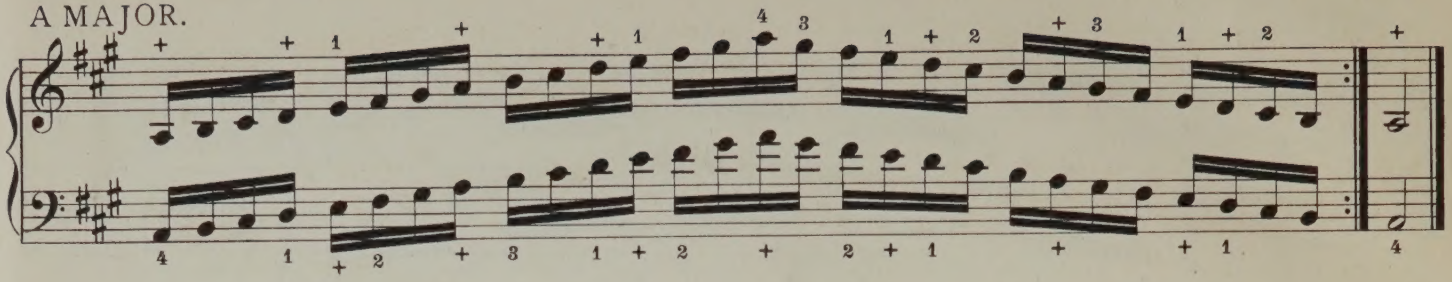


A MAJOR.



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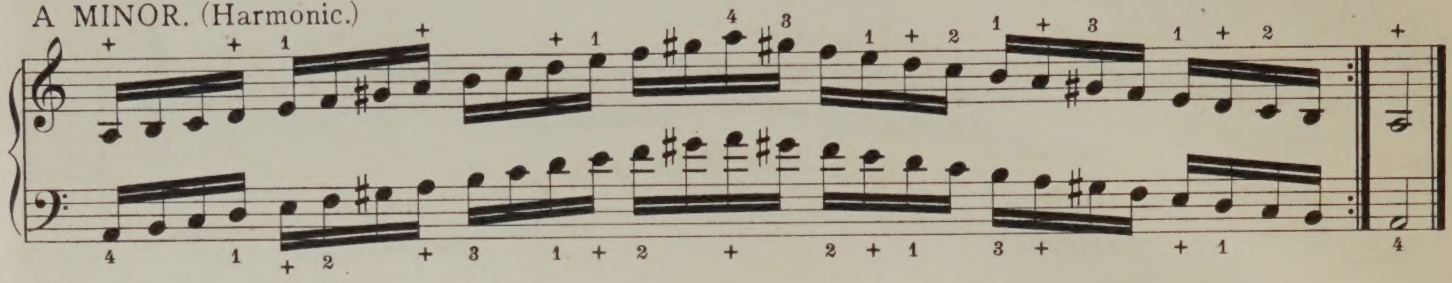

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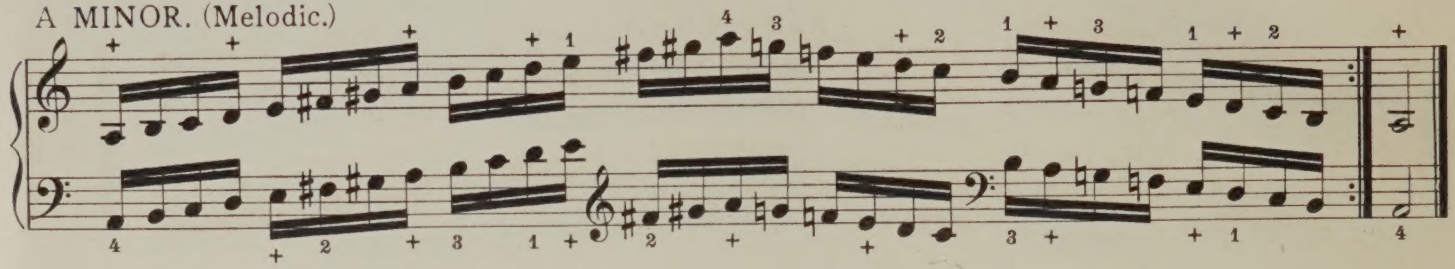
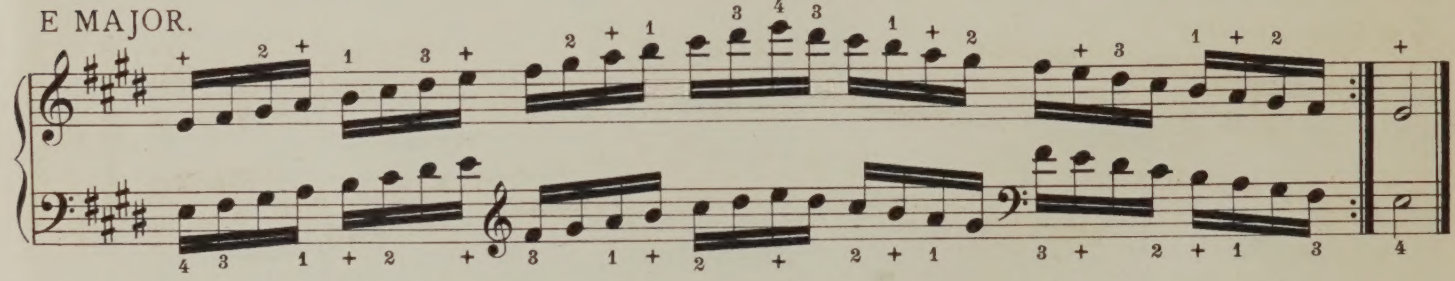


E MAJOR.



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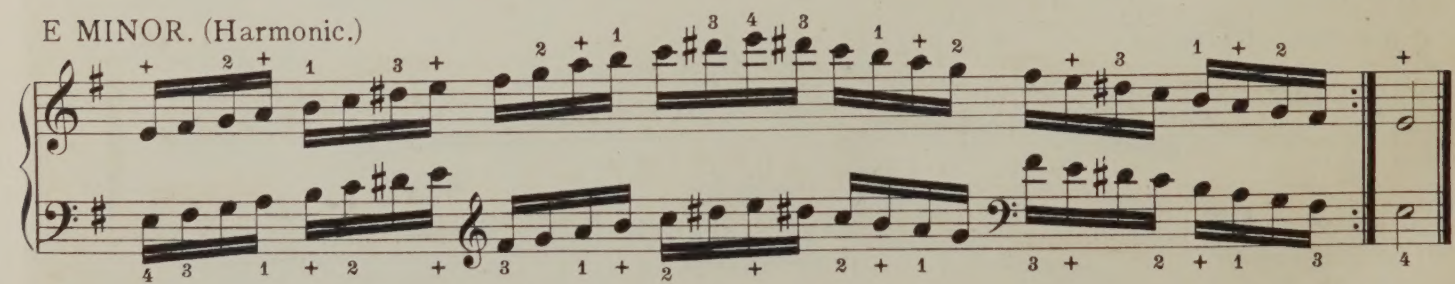

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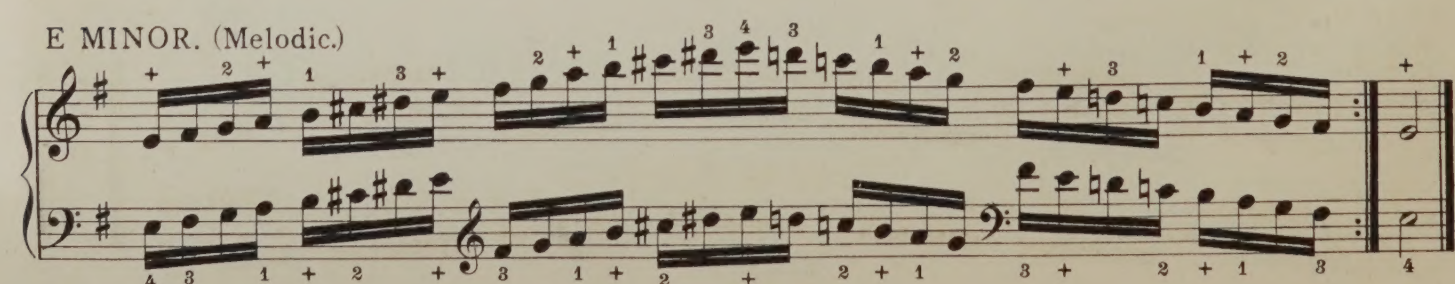
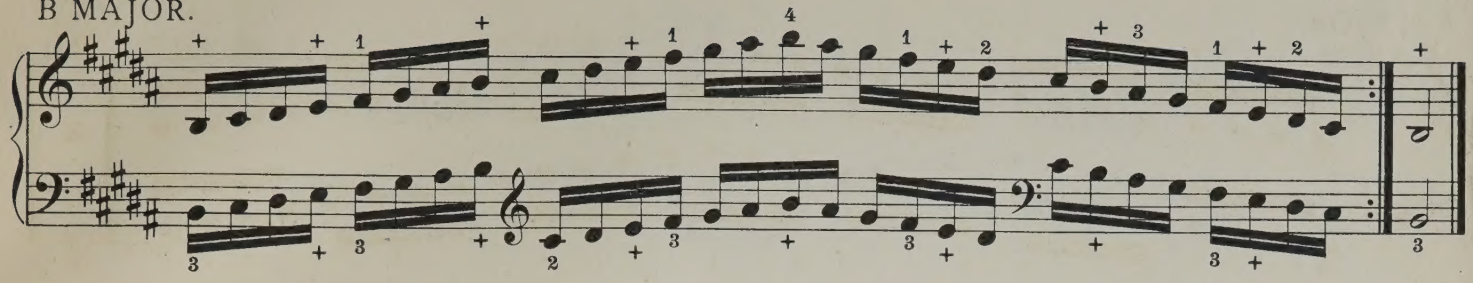


B MAJOR.



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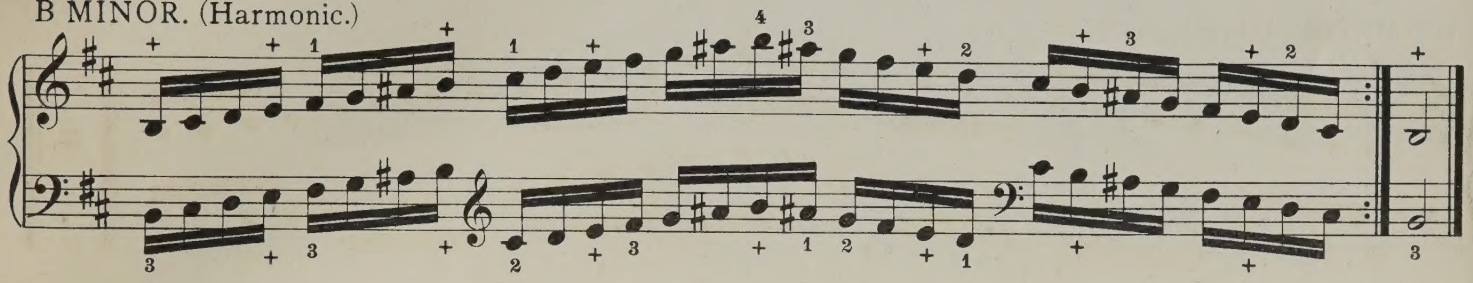

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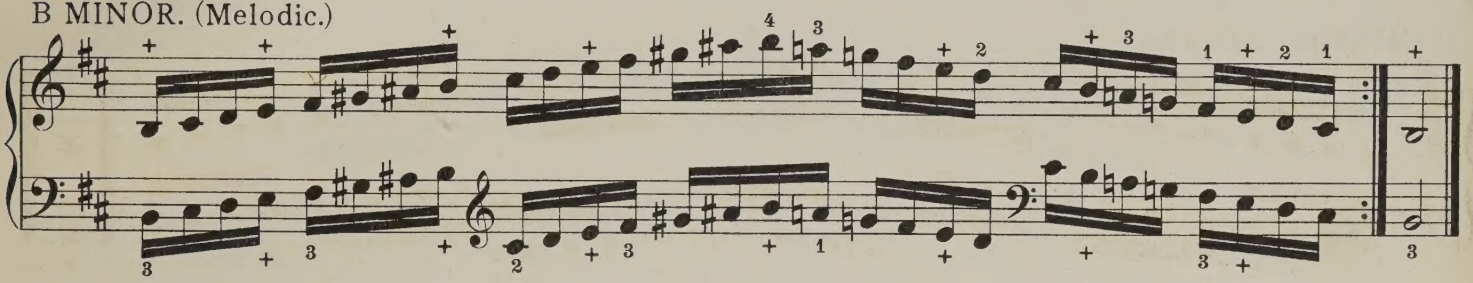
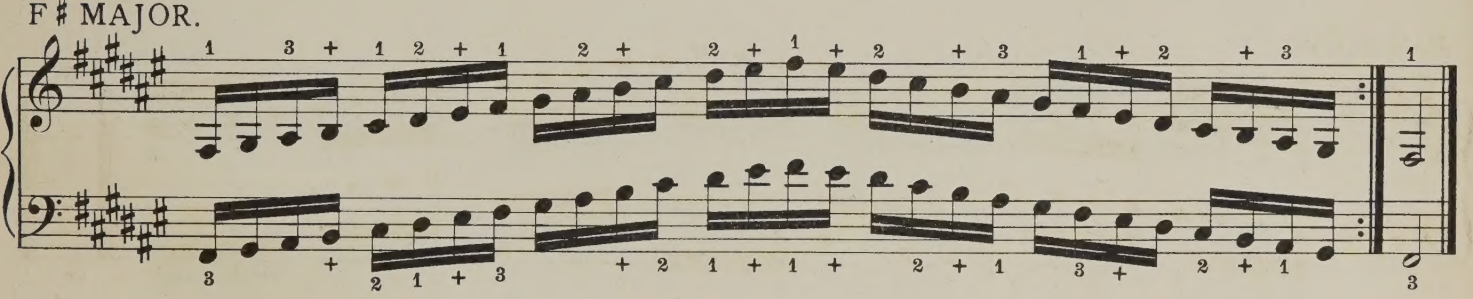


F ♯ MAJOR.



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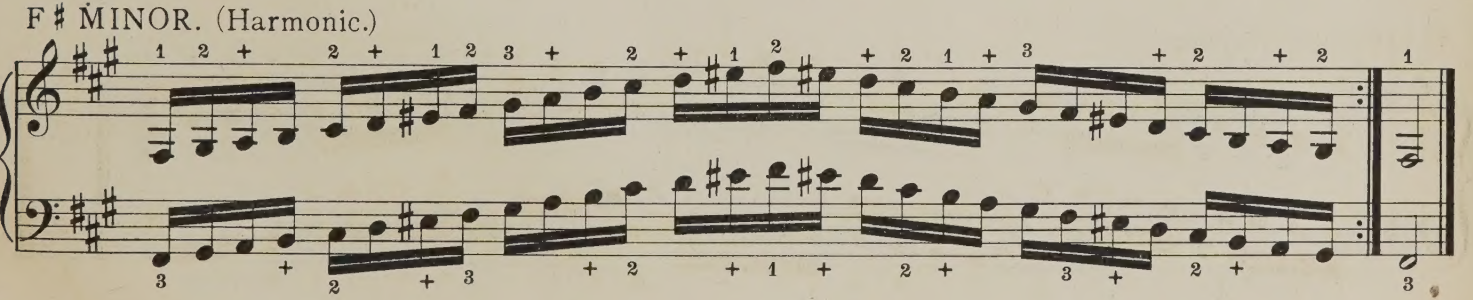

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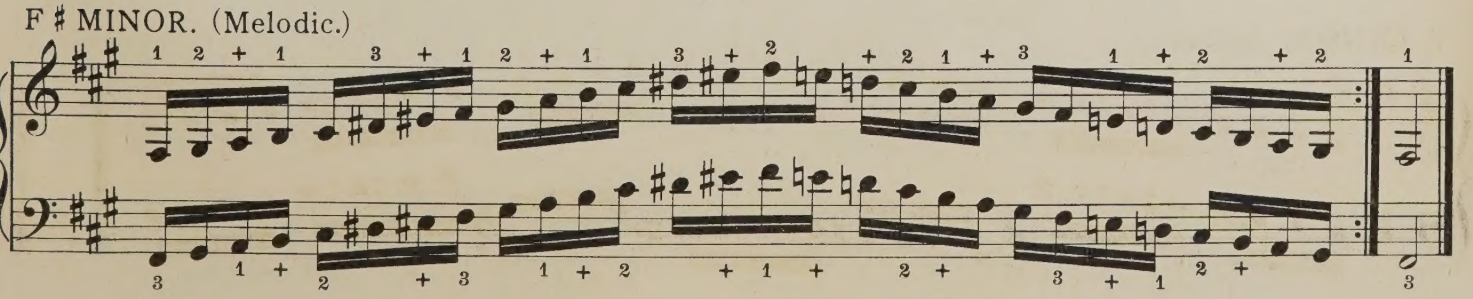
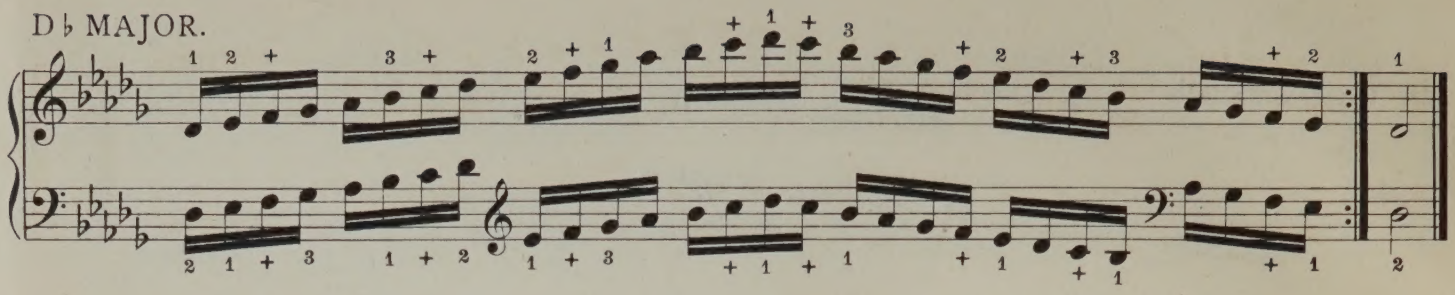
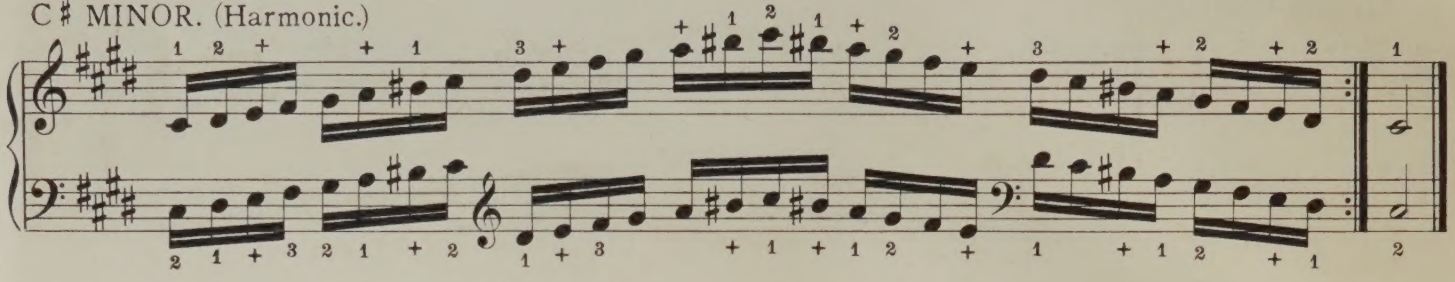


D♭ MAJOR.



C♯ MINOR. (Harmonic.)



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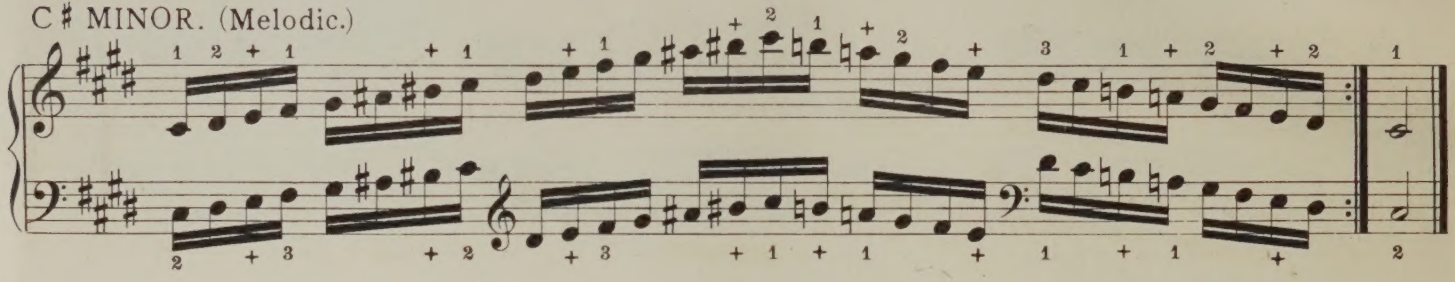

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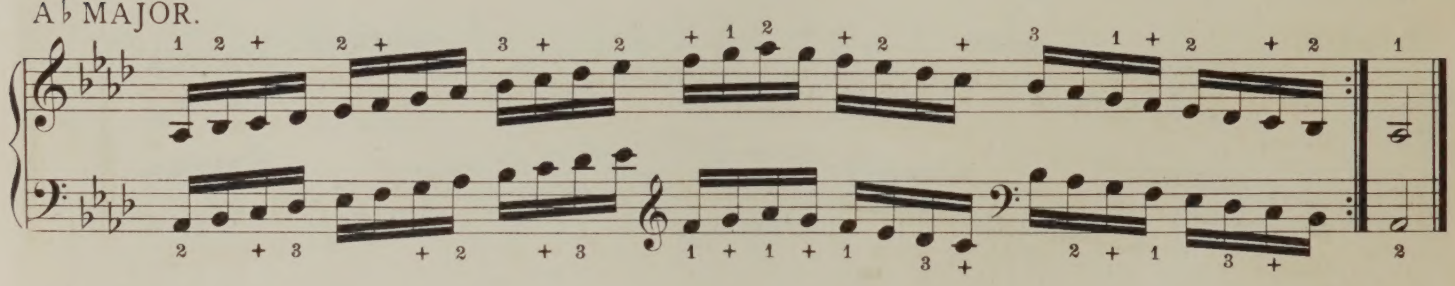

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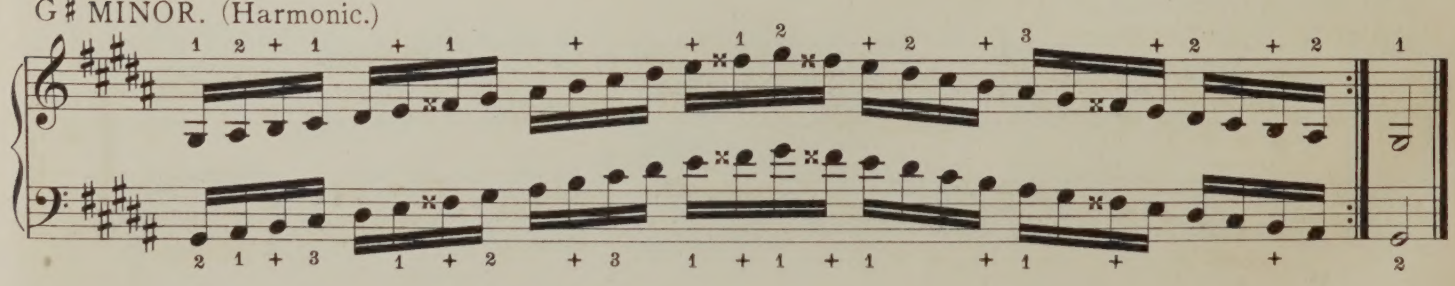

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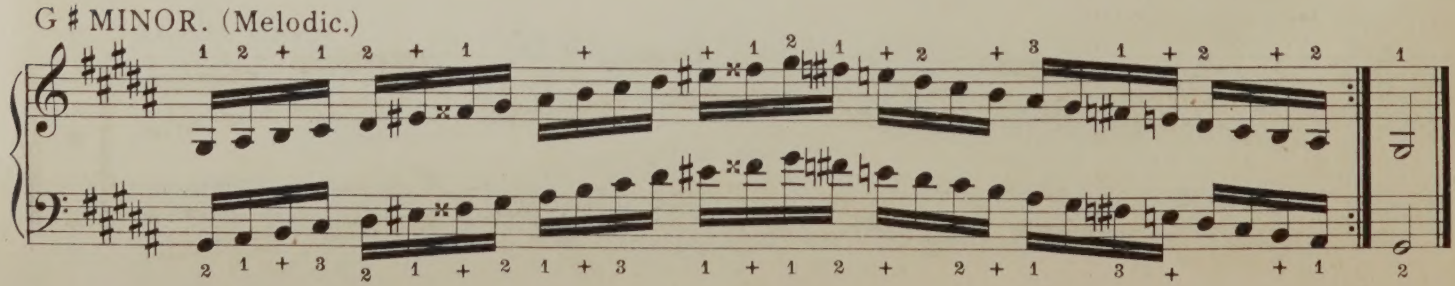

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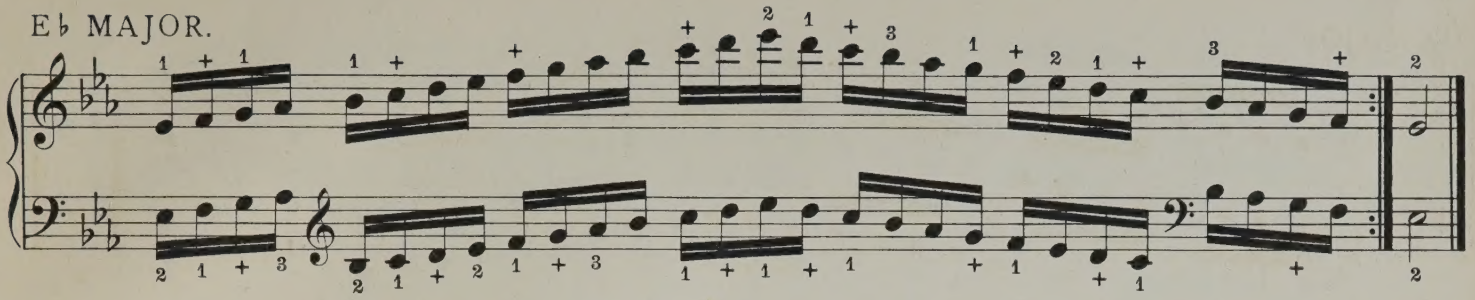

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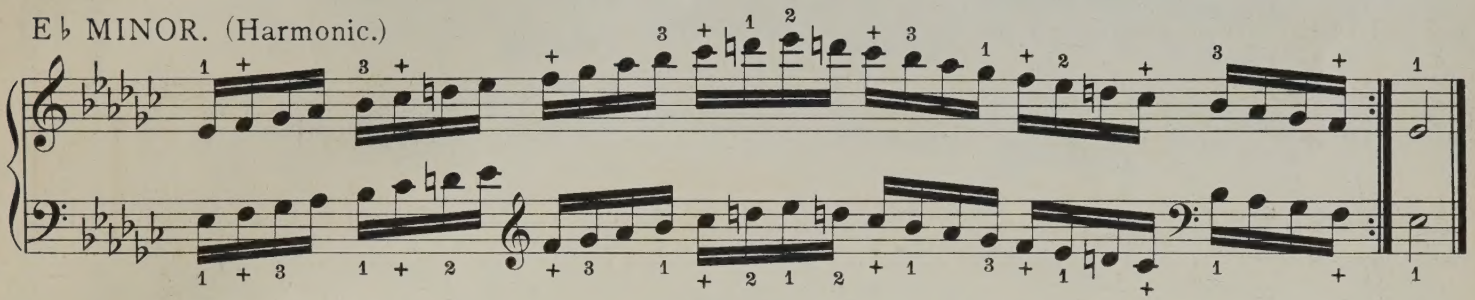

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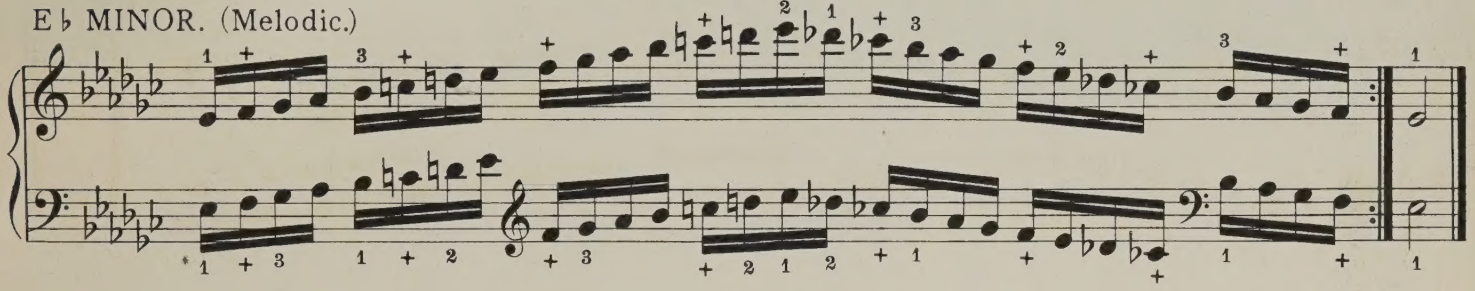

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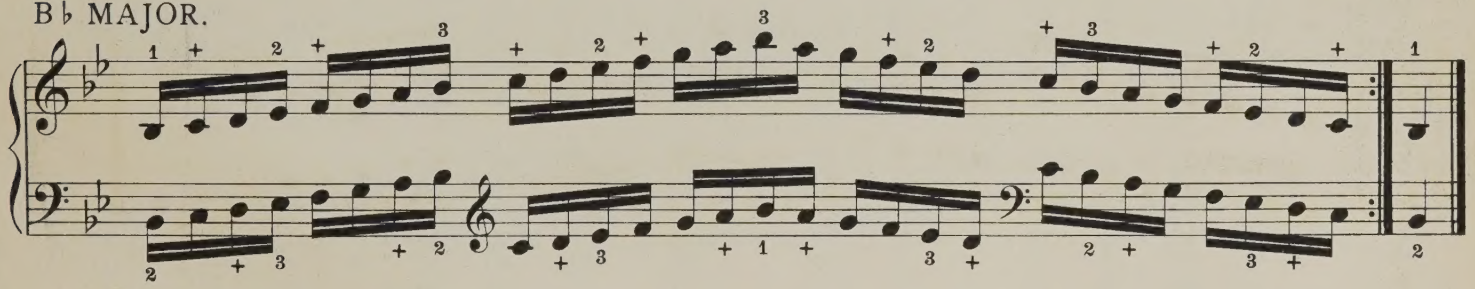

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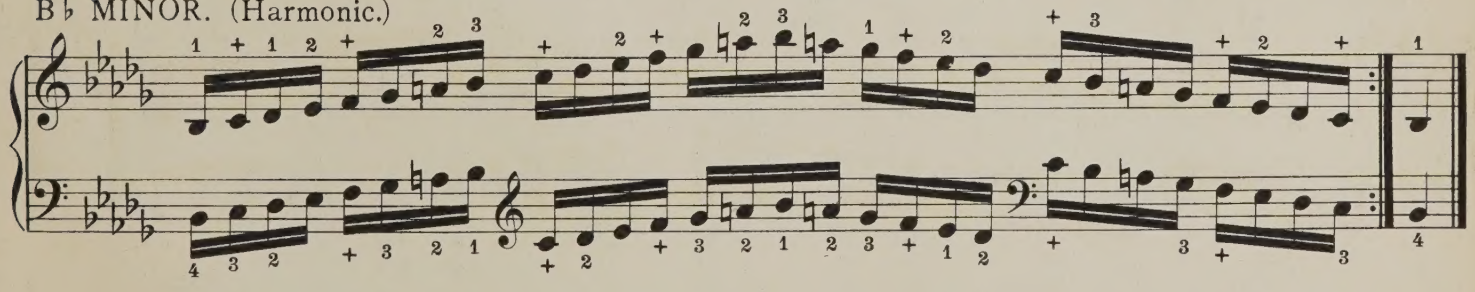

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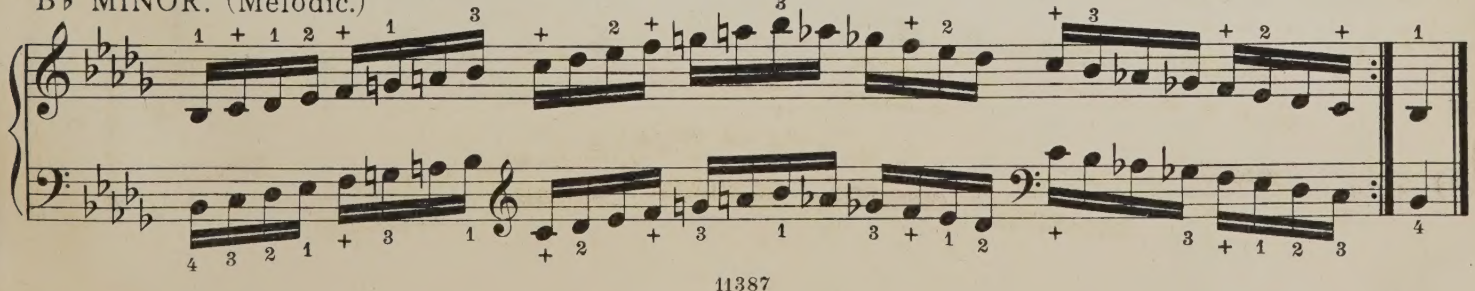

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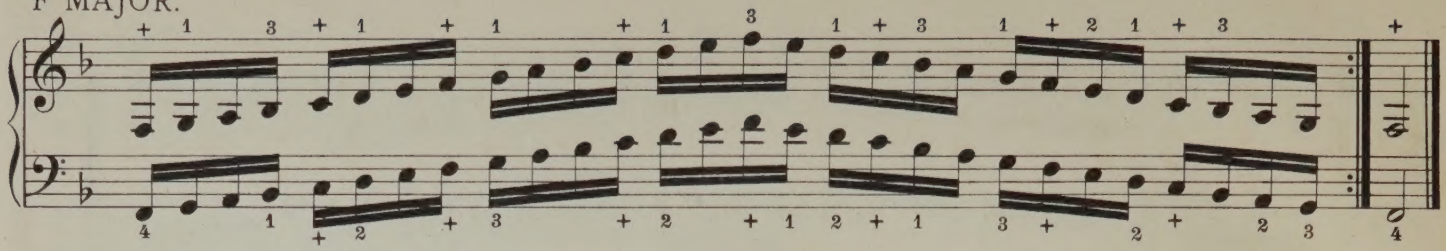

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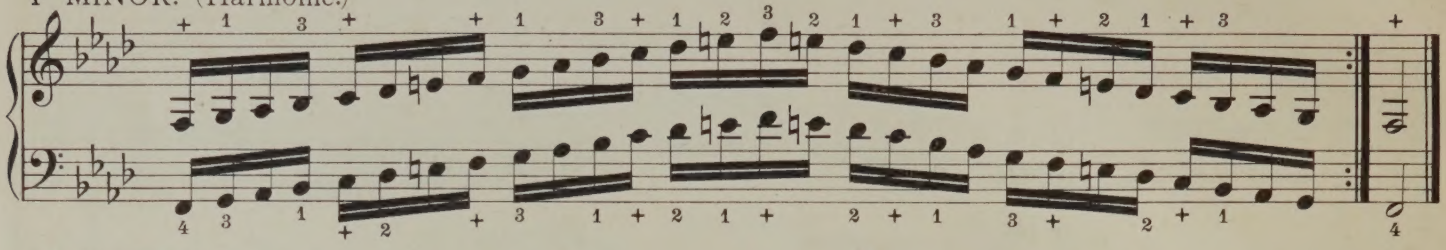

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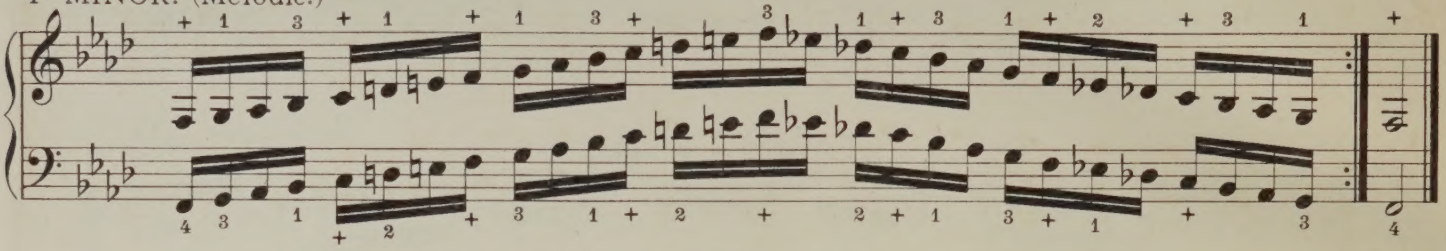
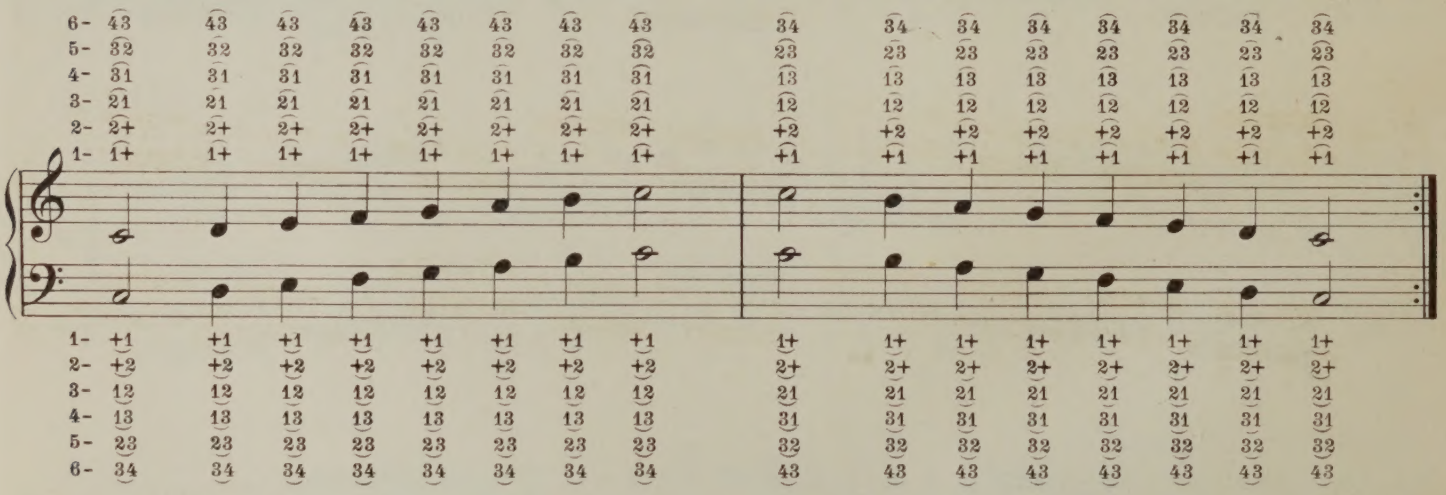
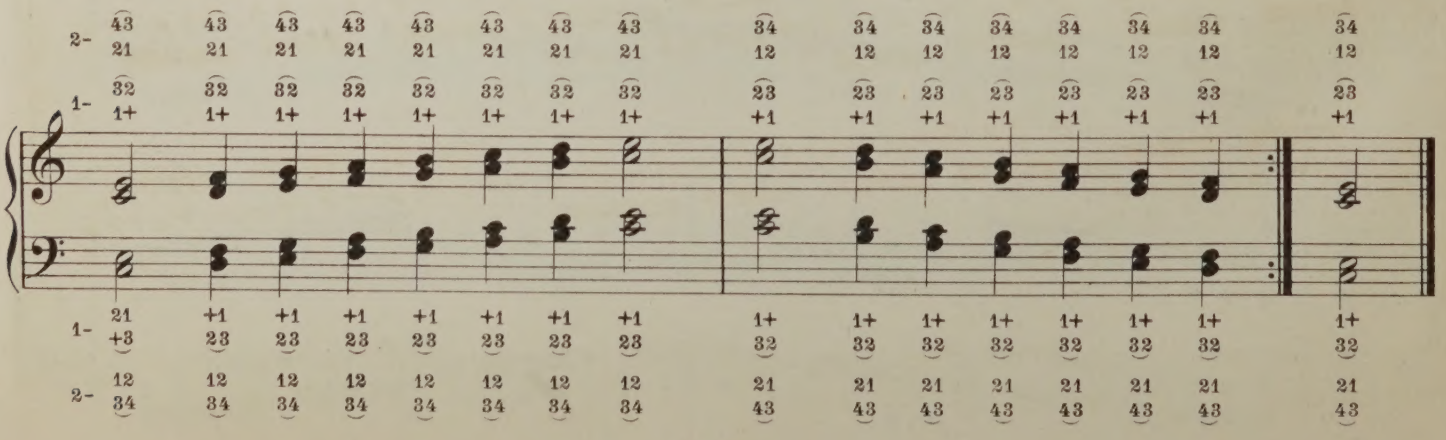
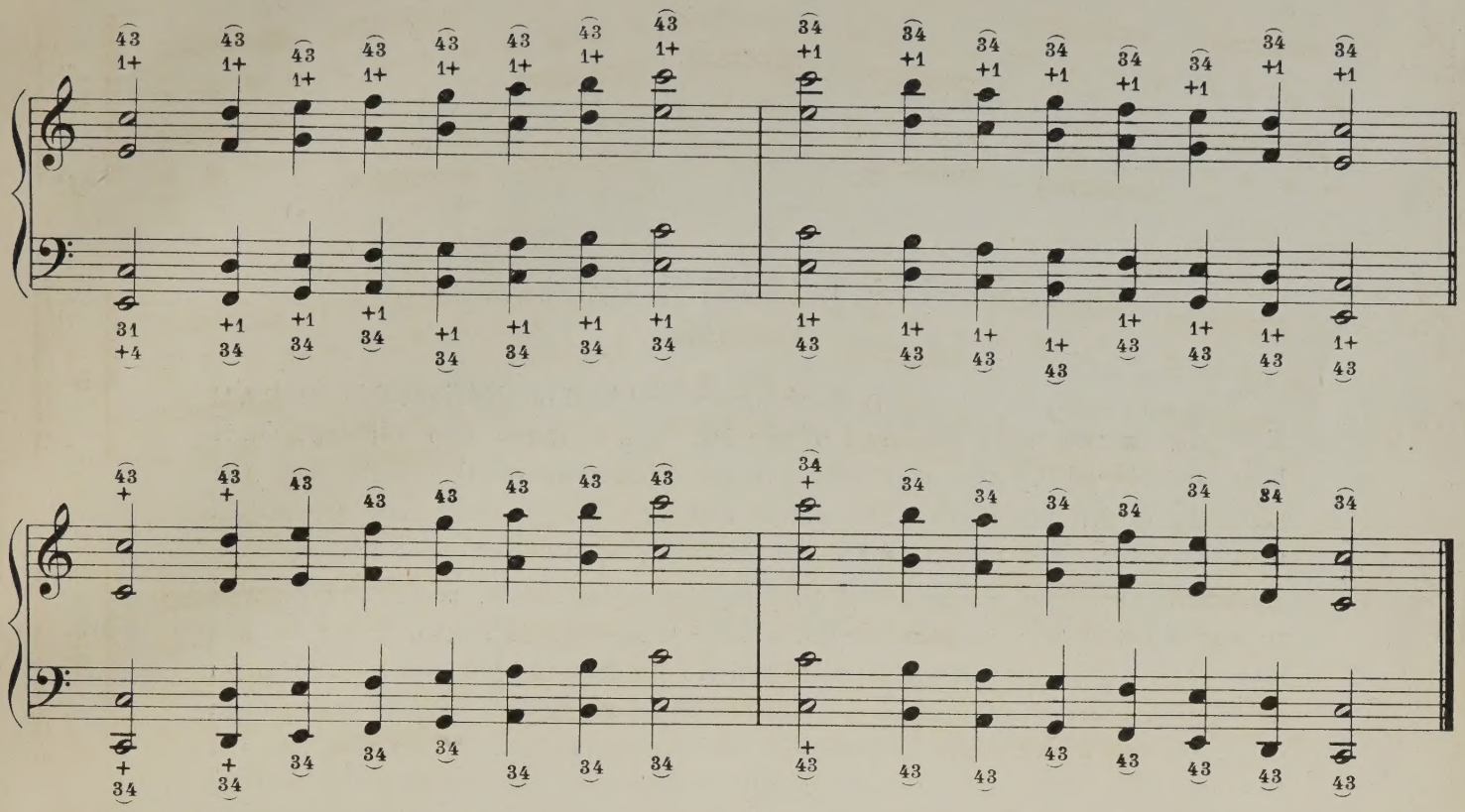


Though not considered so necessary now in view of securing a more perfect legato touch, some of the scales may be practised with changes of finger on each note after the following plan, for one octave in each case:

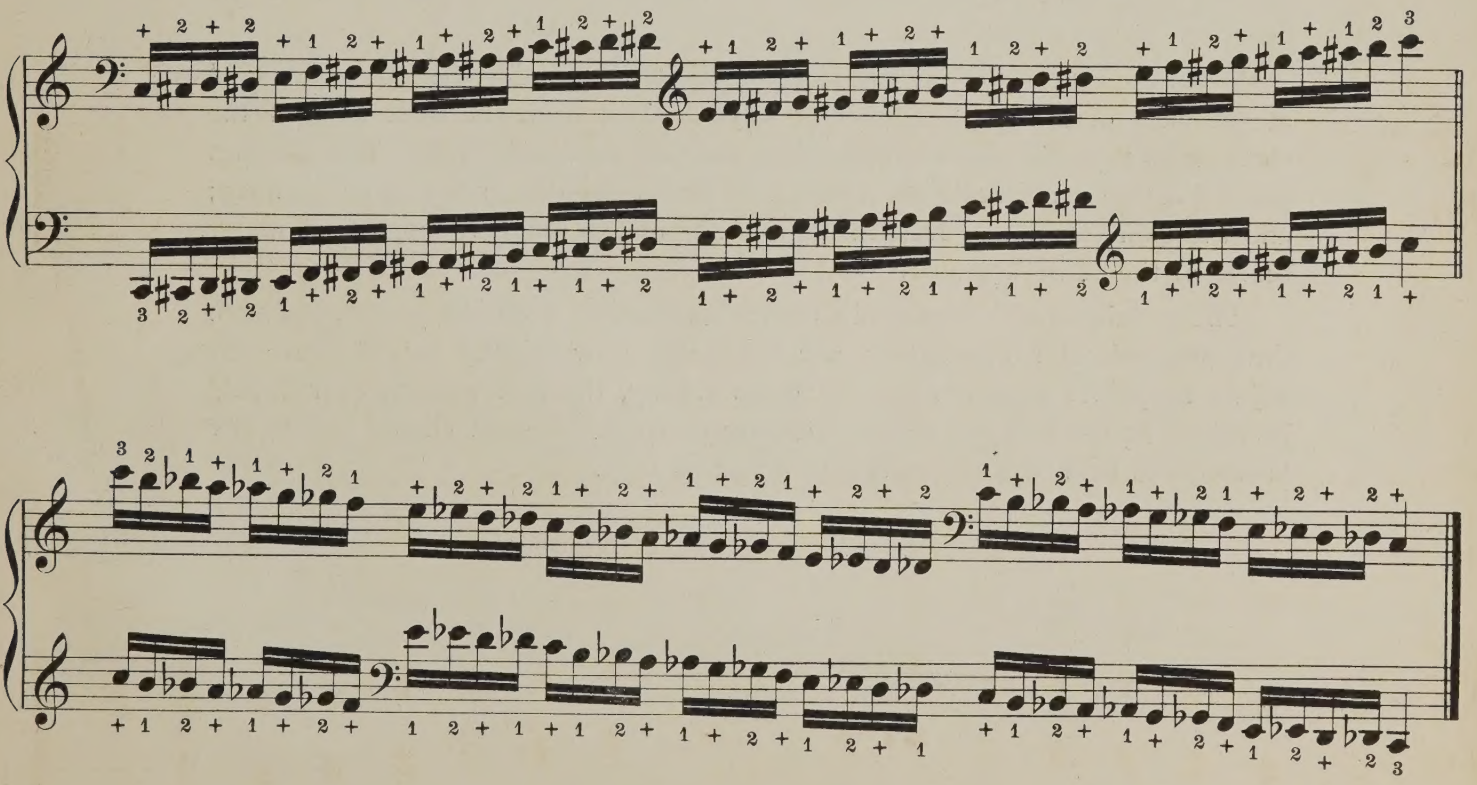


Scales in thirds, sixths and octaves may be played upon the methods here indicated.





Chromatic Scale.



The chromatic scale may be practised in any key, that is from any note, with fingering similar to that here given.

SCALES FOR THE PEDALS.

The signs employed are ∨ ∩ for the point and heel of the right foot, and ∧ ∪ similarly for the point and heel of the left foot. When two adjacent short keys are played by the two sides of the front part of the same foot, the signs $\underline{\vee\vee}$ or $\overline{\wedge\wedge}$ are used. The marks intended for the right foot are placed over the stave, those meant for the left foot are placed under the stave.

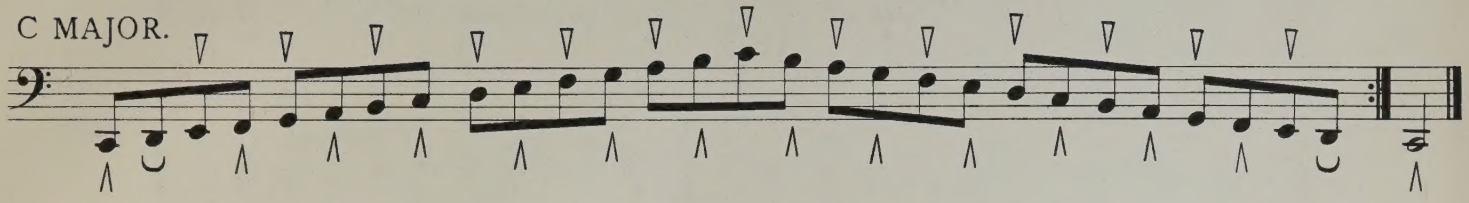
There are many methods of playing the pedal scales, so it may be well to explain the few simple principles here adopted: The two feet are used alternately as far as possible. Although no unalterable law can be laid down as regards the best method of crossing, or passing the feet over or under each other, on the whole, there is generally felt to be some gain in passing the left foot over the right, and by consequently assigning to the left foot the playing of the short pedal keys as often as may be convenient, especially in ascending passages. This practice of giving the left foot an advantage in movement is not altogether dissimilar to the habit in walking or marching to music, of placing the left foot down to the strong mental impulses, or accented beats of the music.

When the crossing of the feet is accomplished by placing the foot so engaged at the back or that part of the long keys furthest from the front edge of the short pedal keys, the signs already given are thus modified: ∇, Δ. The different octaves of the same scale are marked as far as possible in the same manner; and the same idea has governed the marking of the different major and minor scales of the same key-note.

The pedals should be played as much as possible from the ankles, and with little perpendicular movement; the feet being only slightly raised above the keys. In points at which the feet cross closely, the foot passing over should be raised at the heel and the foot passing under at the back should be slightly lowered and held near the surface of the pedal keys.

Pedal Scales.

C MAJOR.



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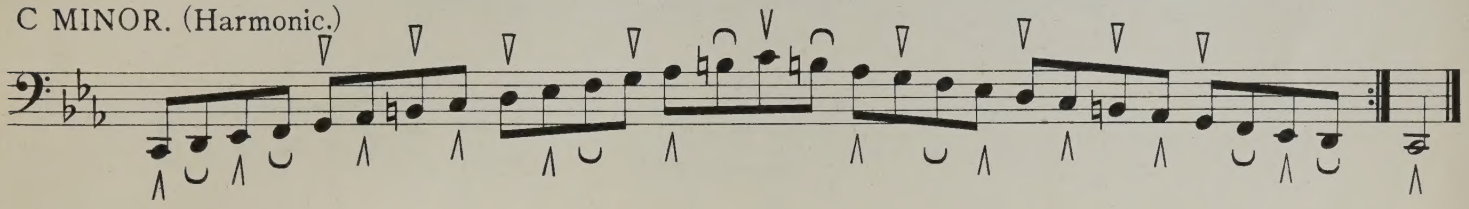

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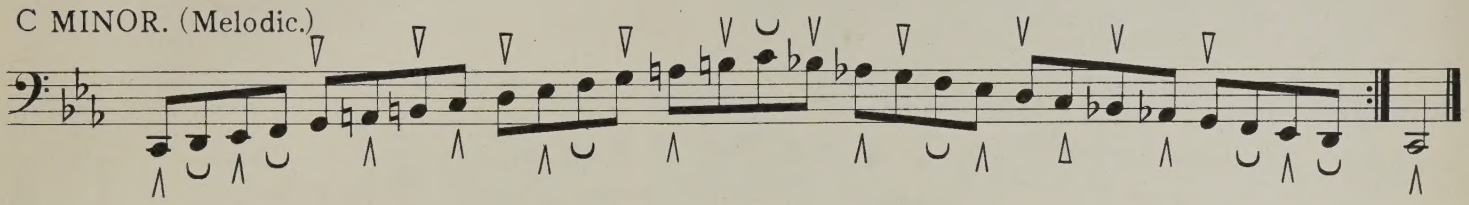

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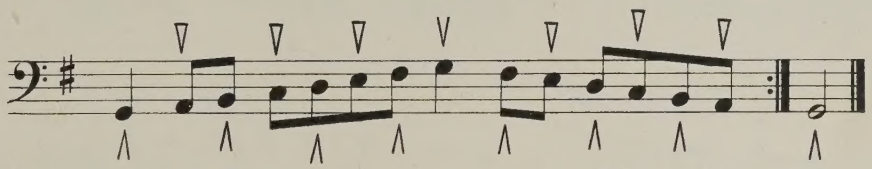

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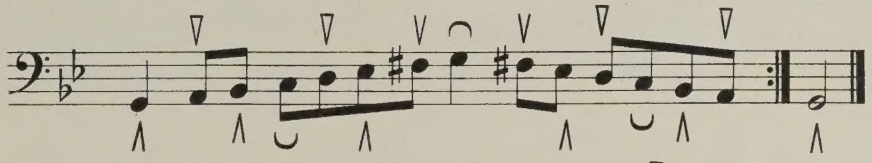

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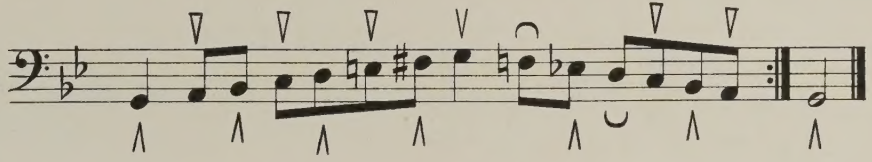

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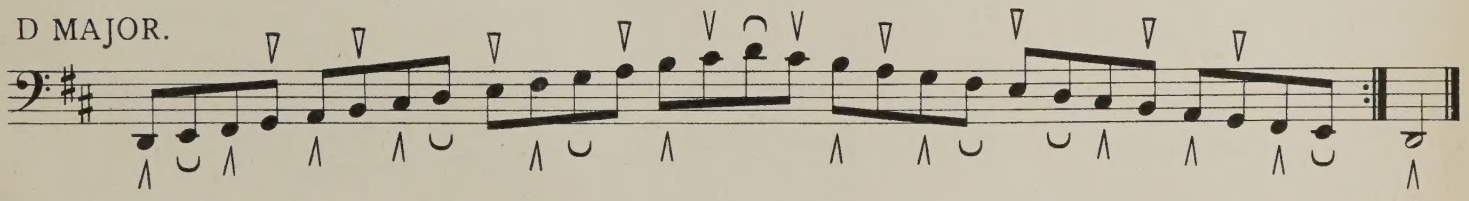

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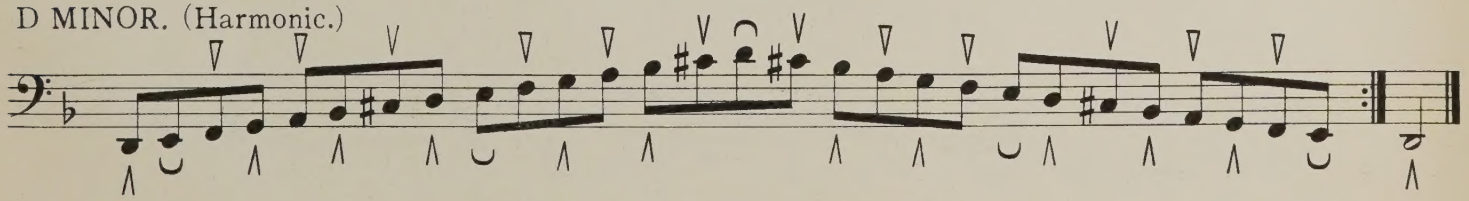

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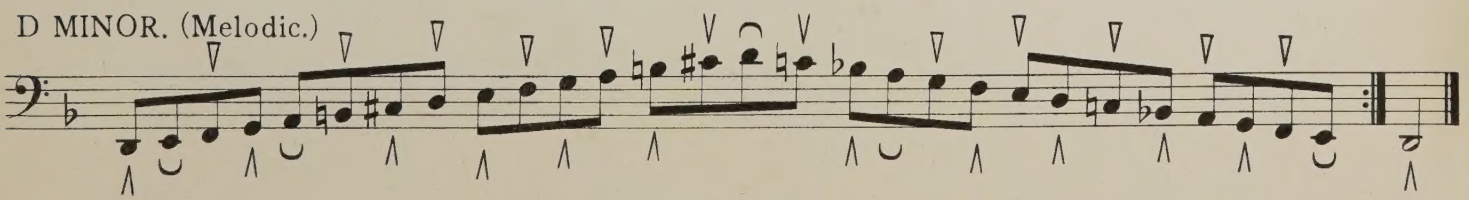

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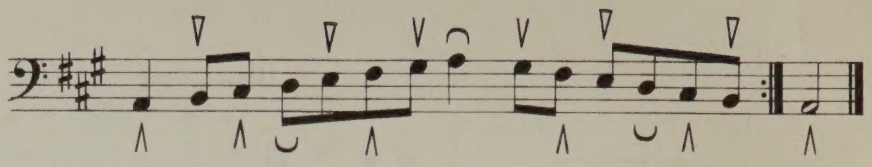

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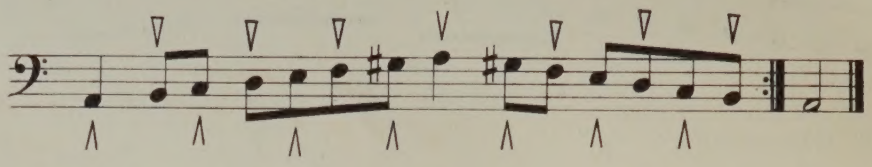

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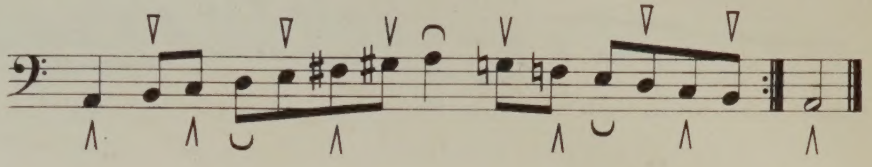

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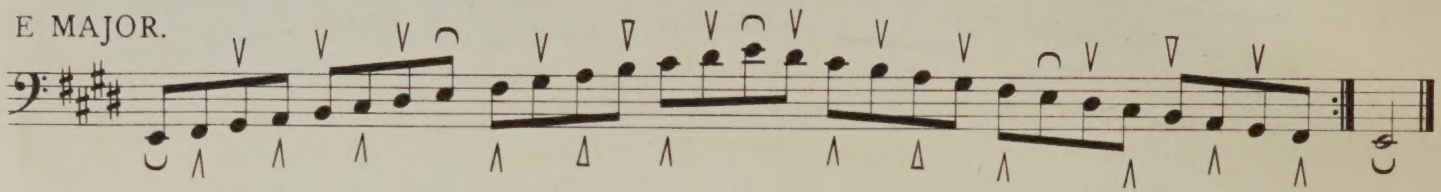

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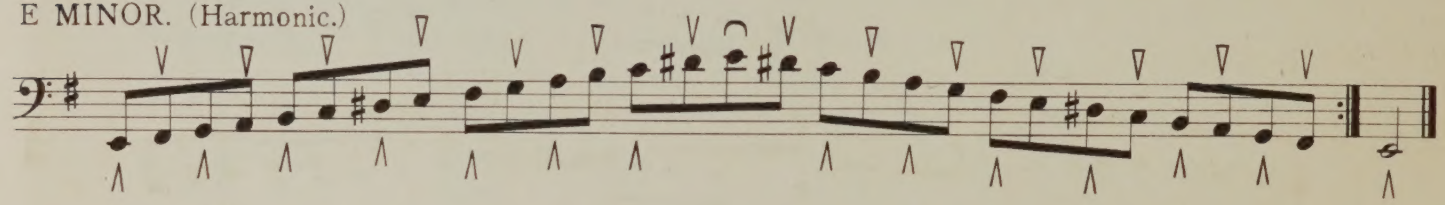

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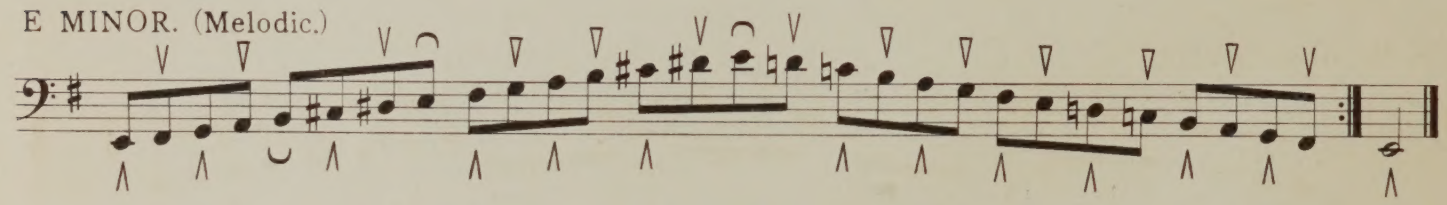

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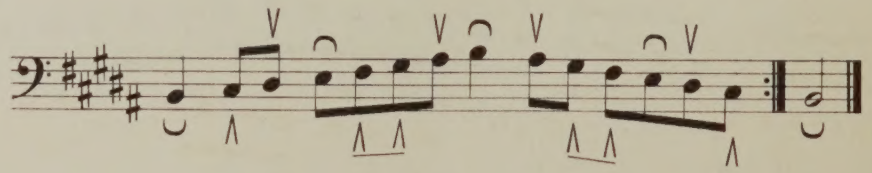

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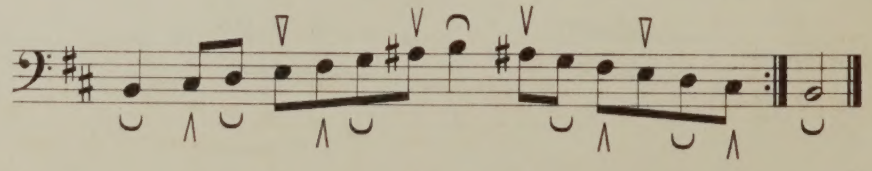

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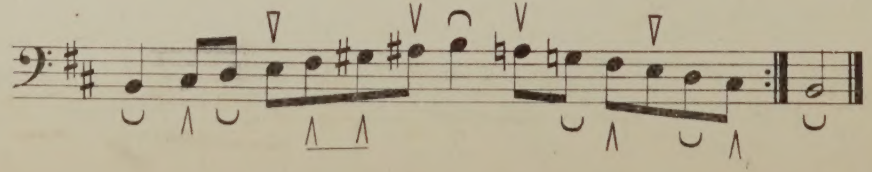

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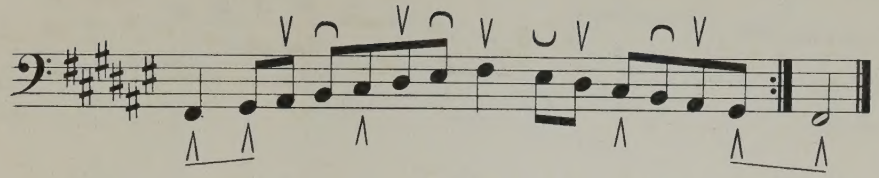

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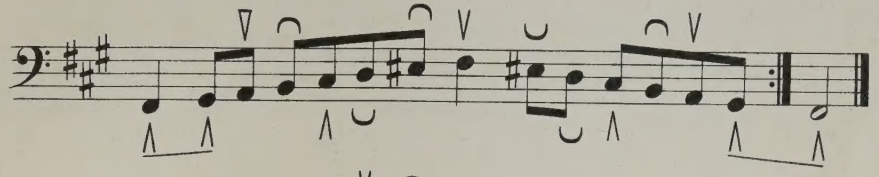

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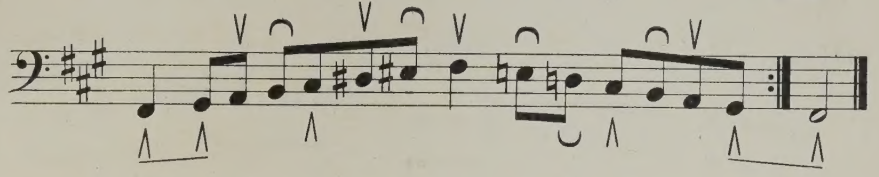

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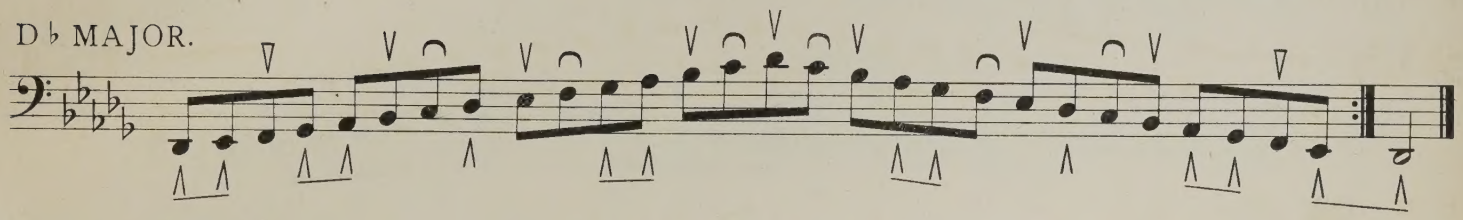

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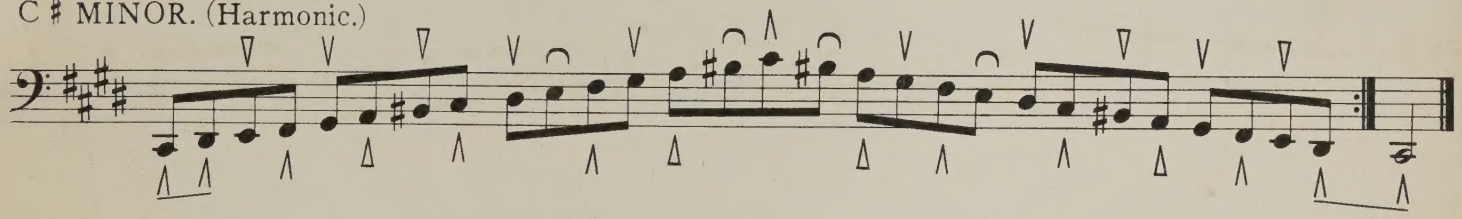

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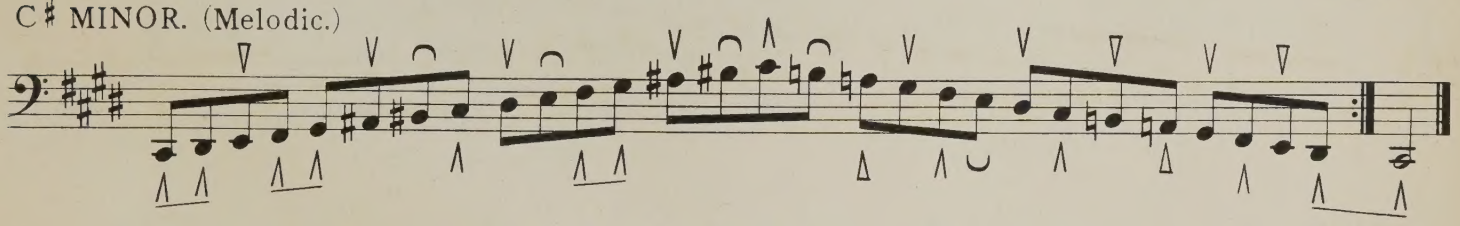

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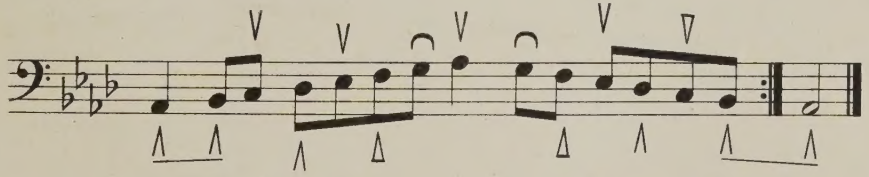

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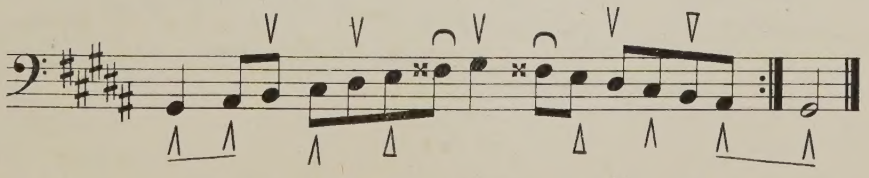

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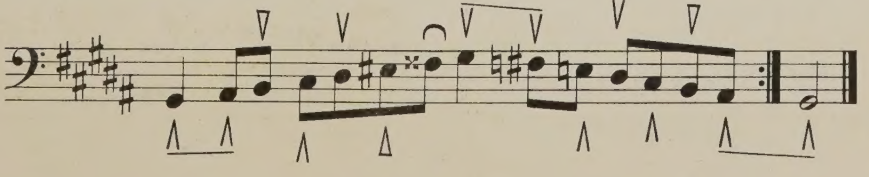

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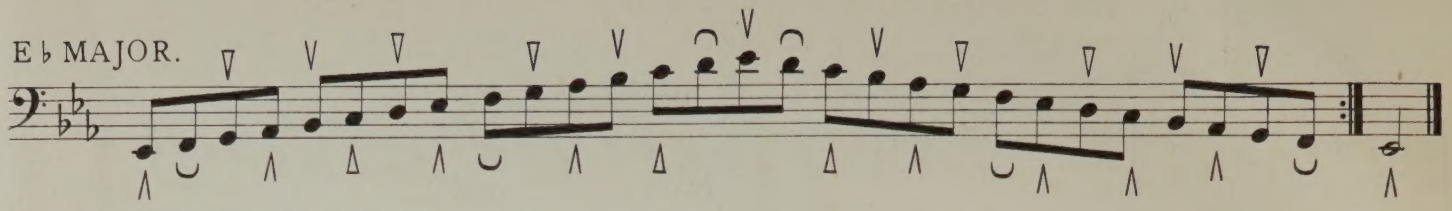

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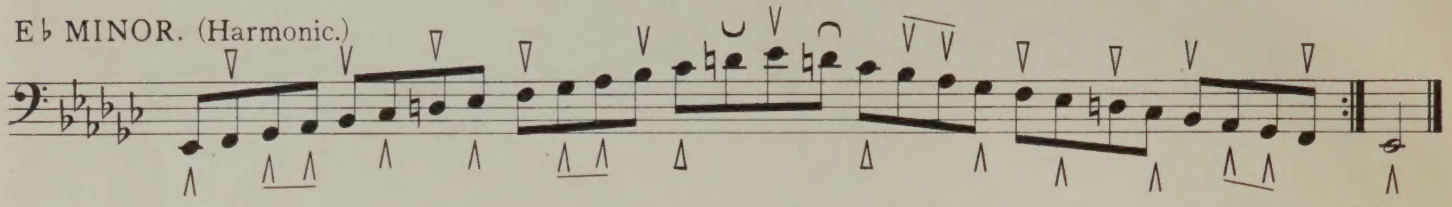

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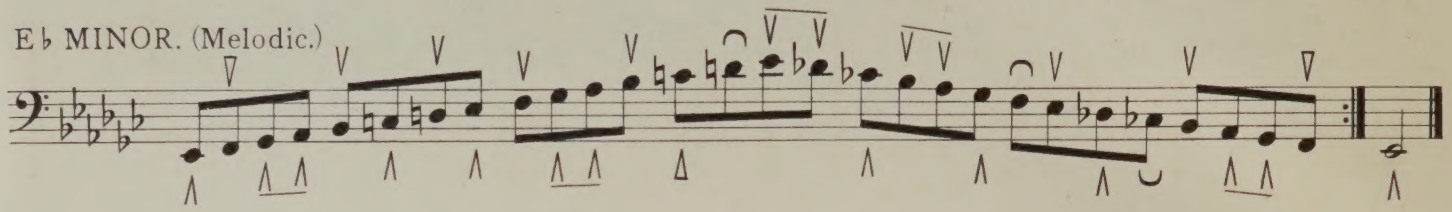

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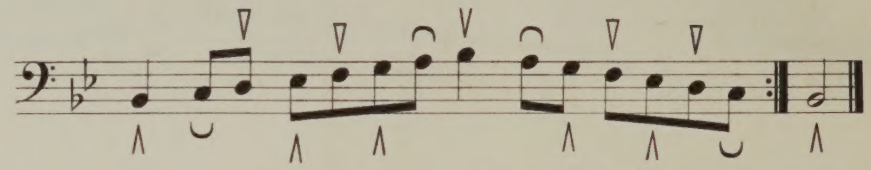
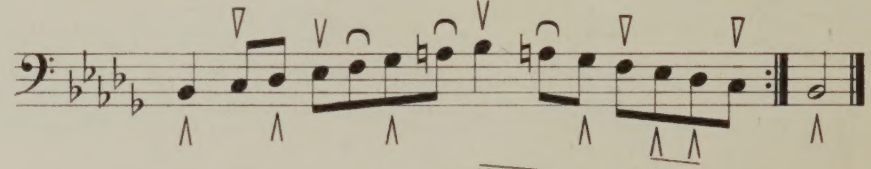


B♭ MINOR. (Harmonic.)



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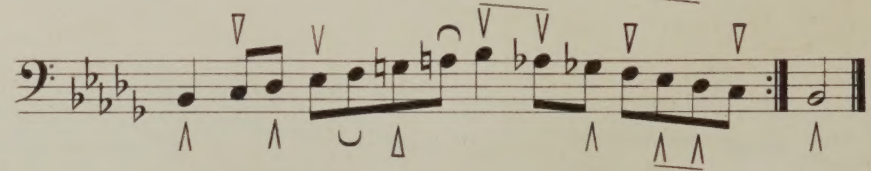
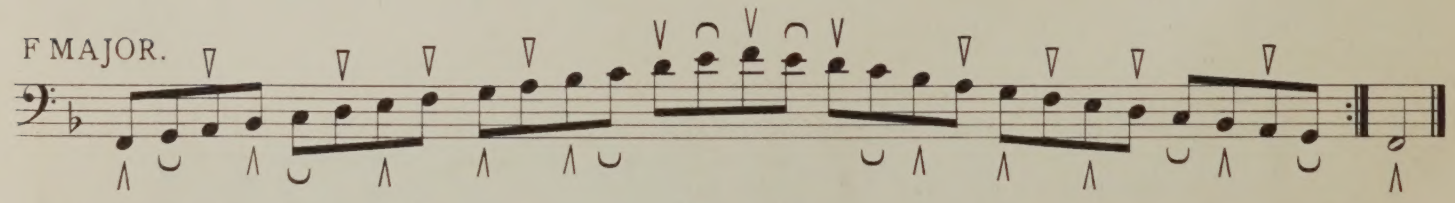


F MAJOR.



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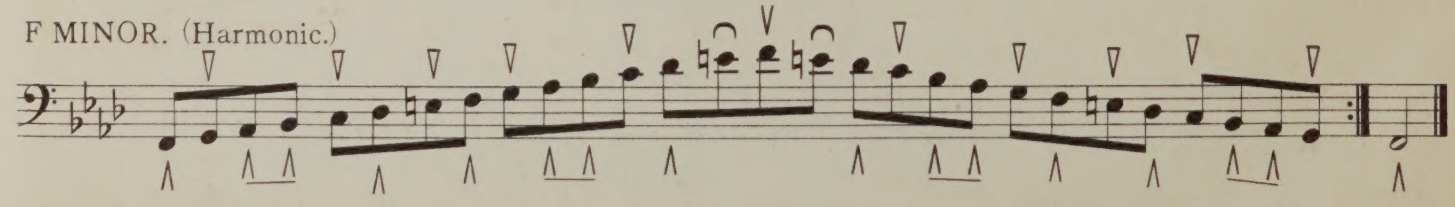

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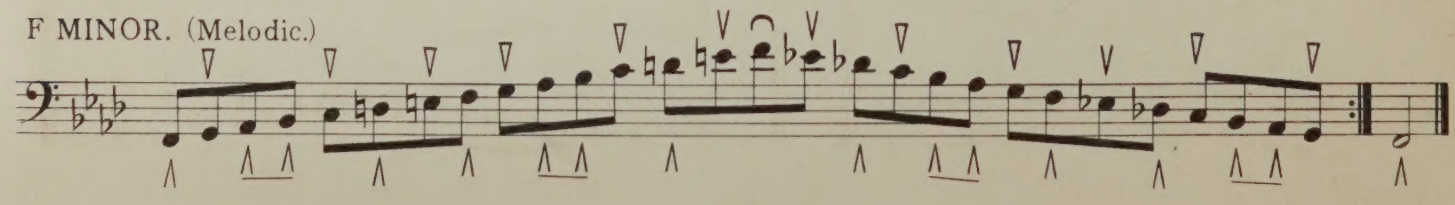
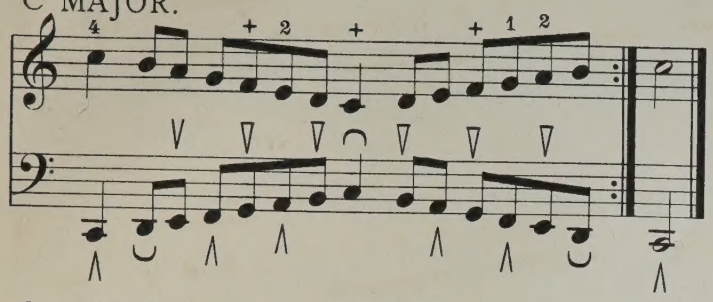
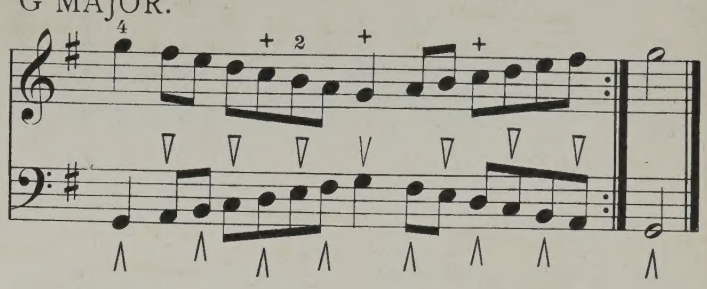


Pedal Scales with Right Hand in contrary motion.

C MAJOR.



G MAJOR.



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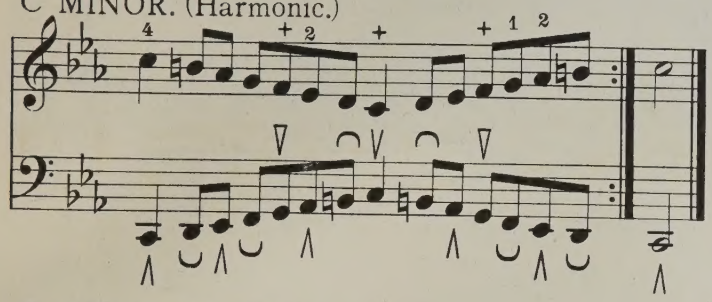

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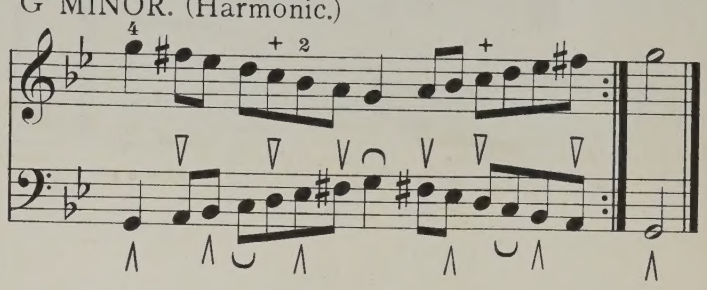

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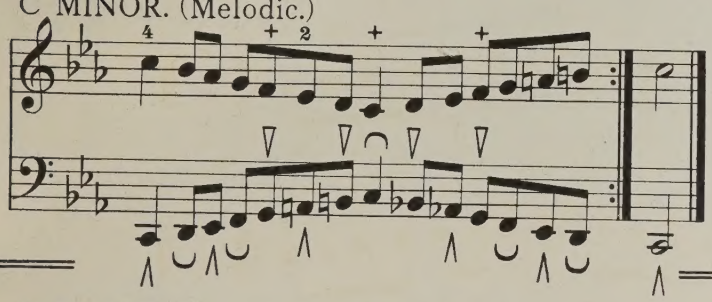

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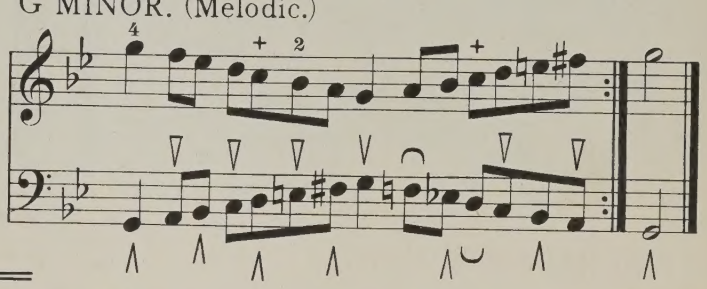
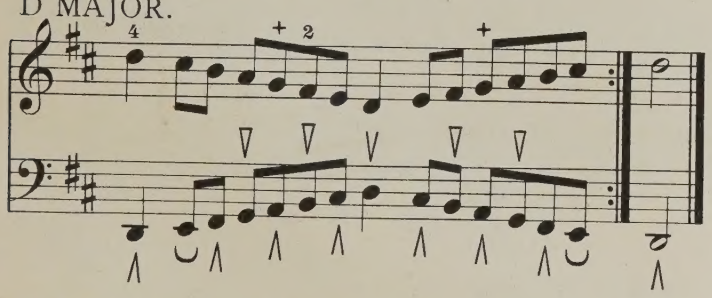
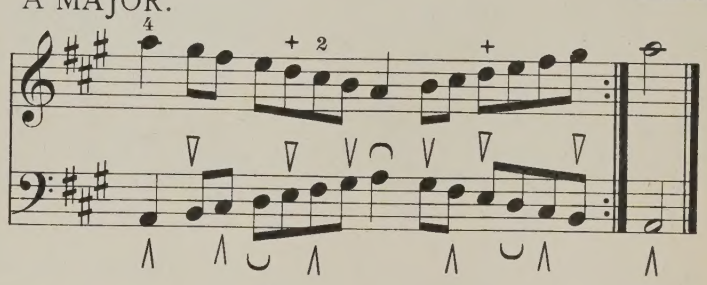


D MAJOR.



A MAJOR.



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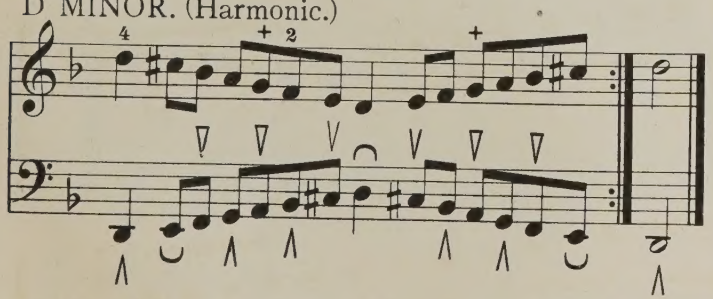

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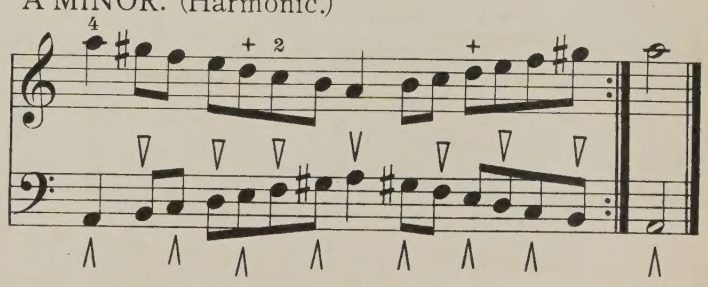
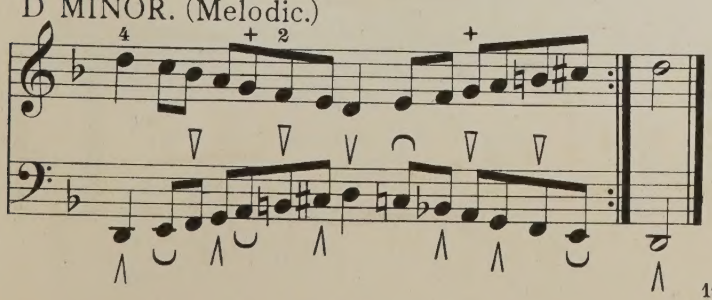


D MINOR. (Melodic.)



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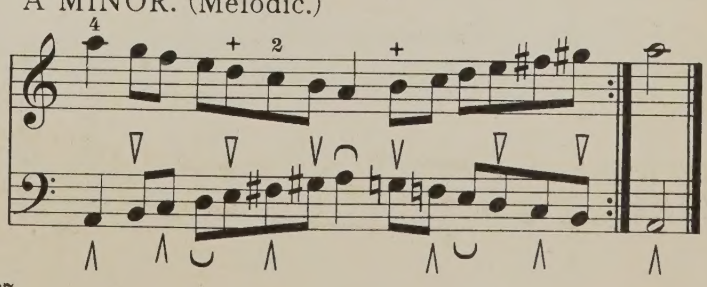
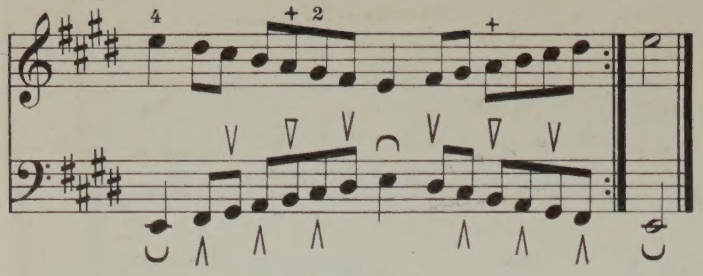
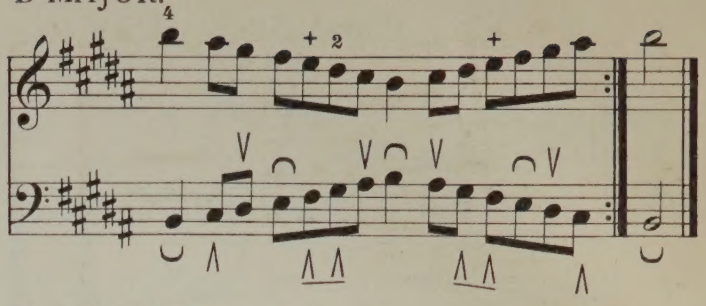


E MAJOR.



B MAJOR.



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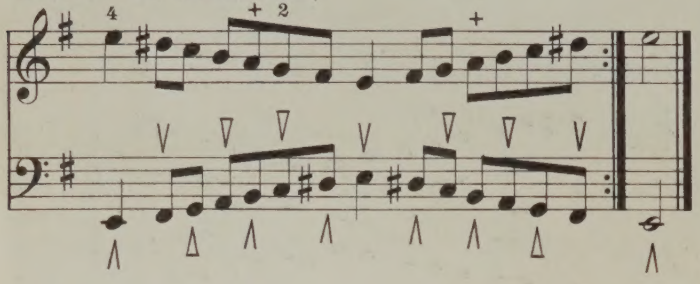

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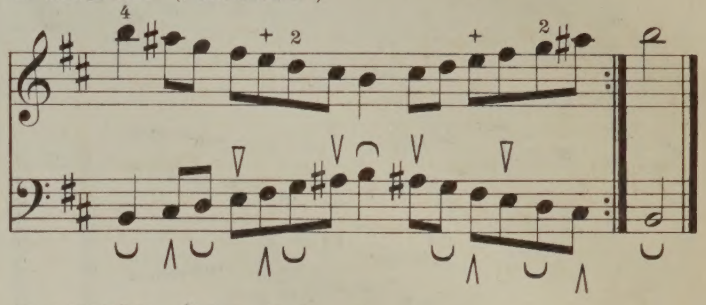

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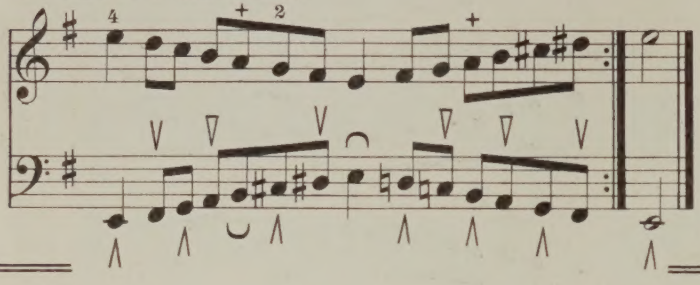

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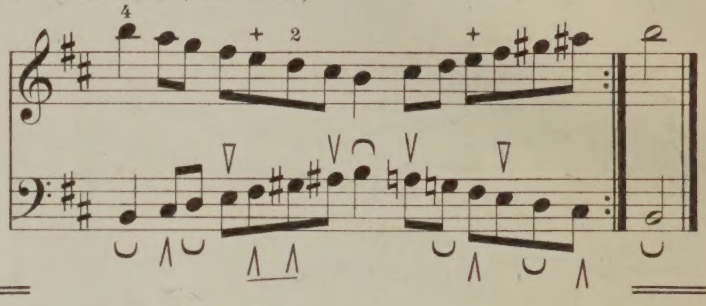
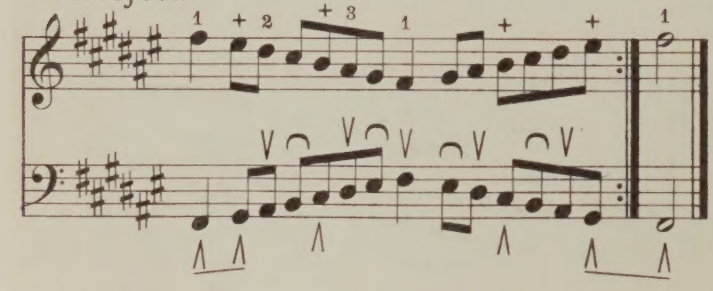
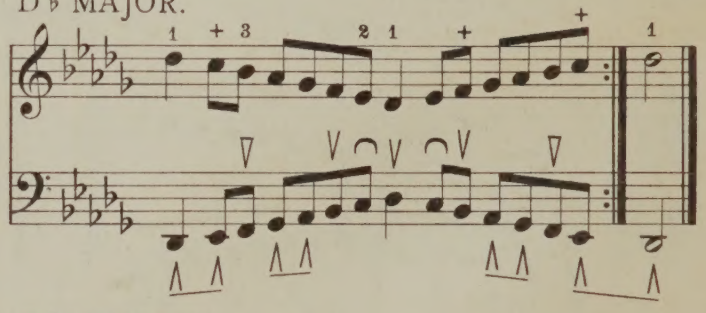


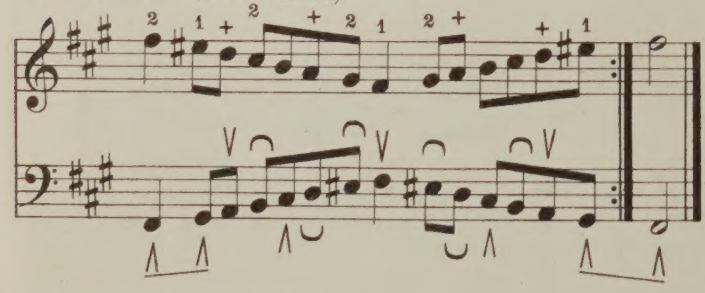
F♯ MAJOR.



D♭ MAJOR.



F♯ MINOR. (Harmonic.)



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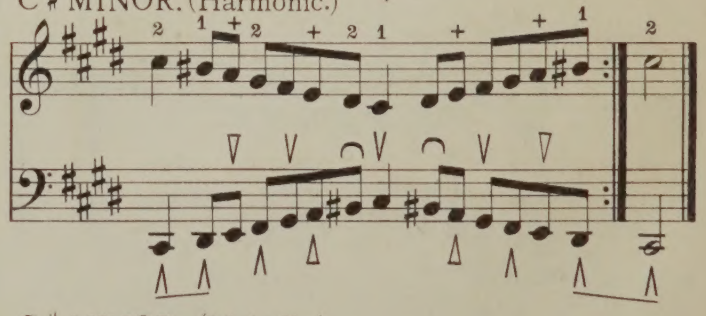

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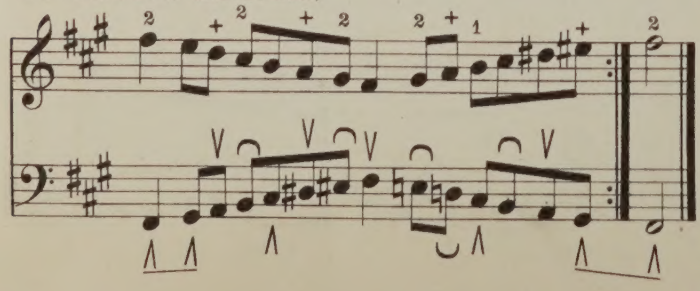

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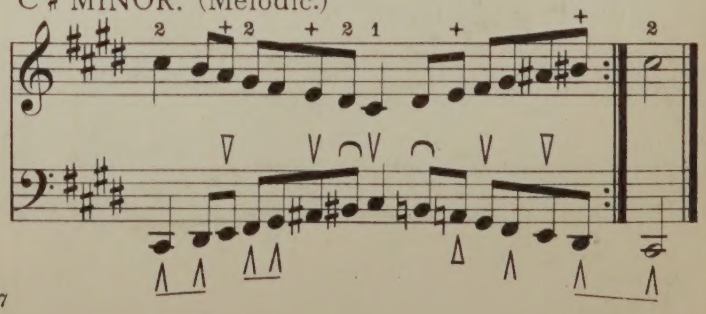
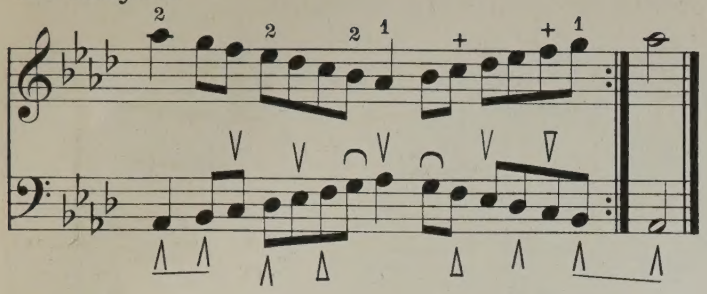
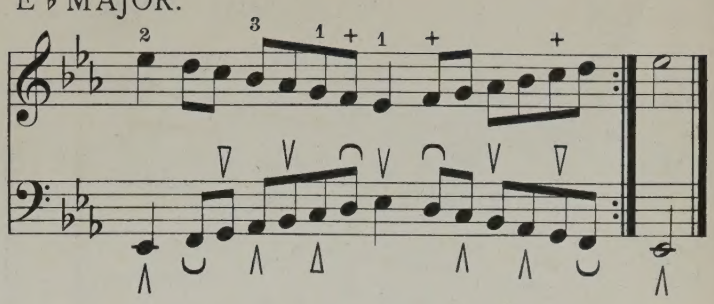


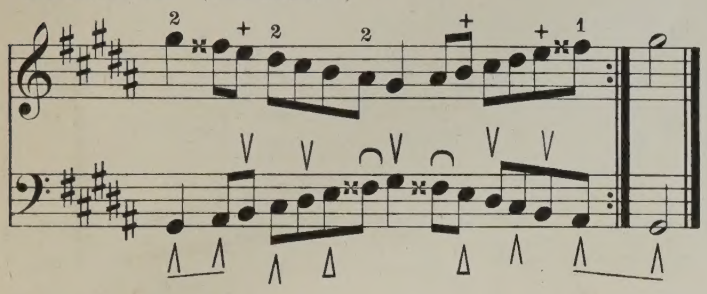
A♭ MAJOR.



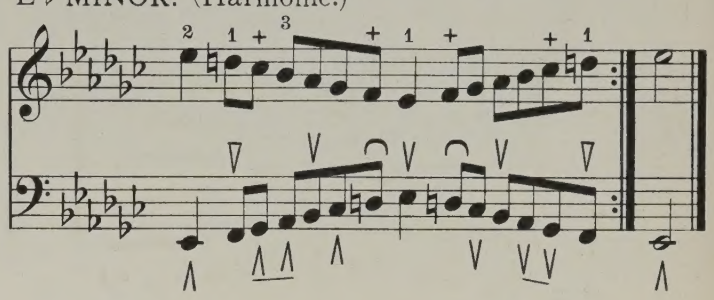
E♭ MAJOR.



G♯ MINOR. (Harmonic.)



E♭ MINOR. (Harmonic.)



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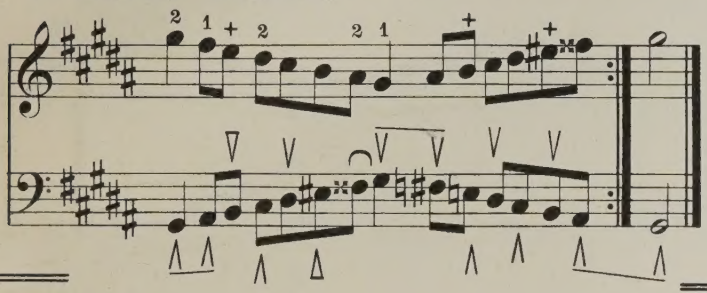

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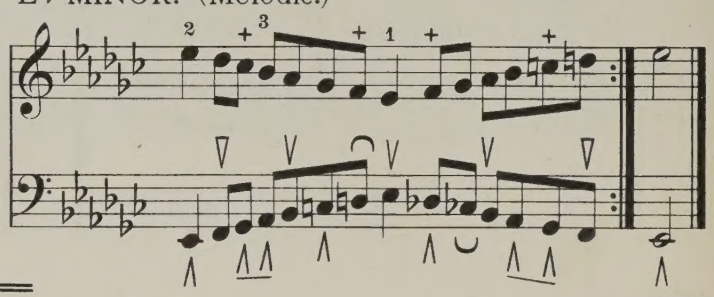
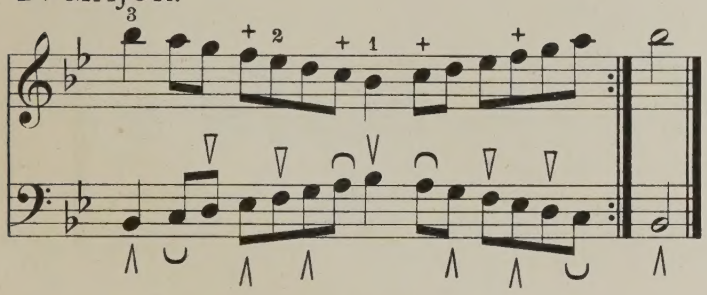
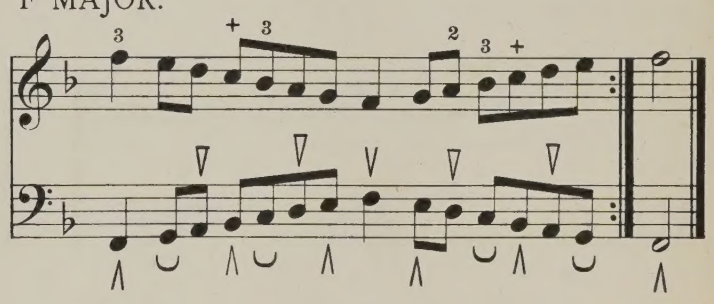


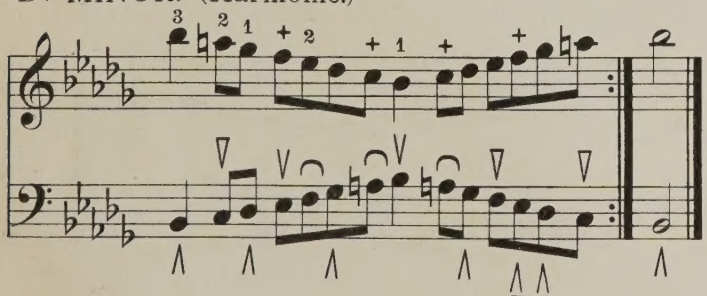
B♭ MAJOR.



F MAJOR.



B♭ MINOR. (Harmonic.)



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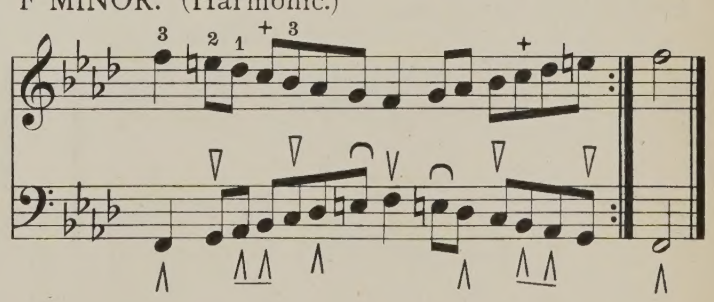

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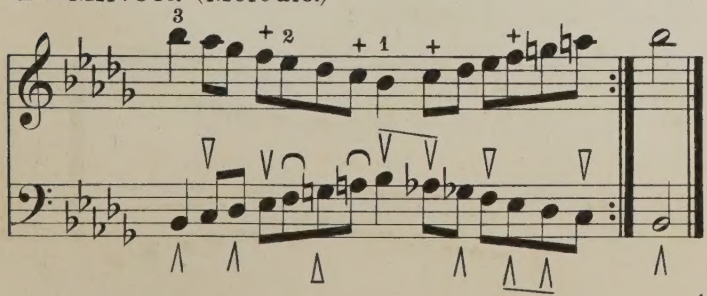
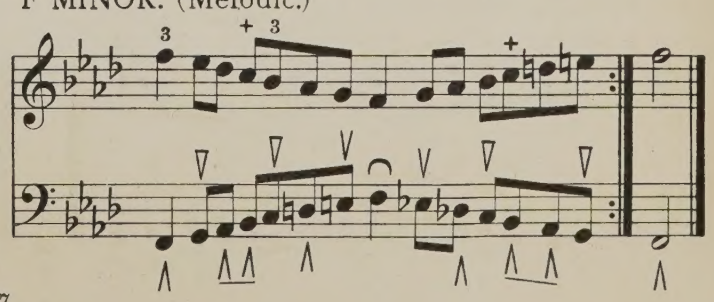
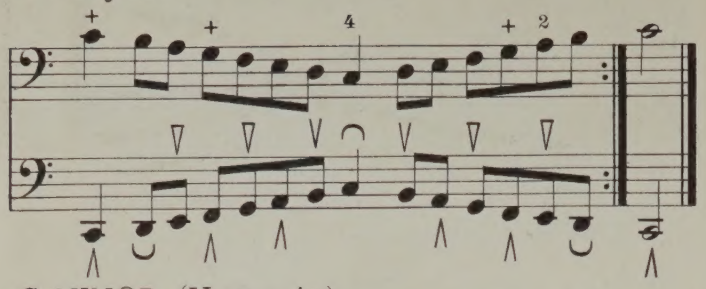


F MINOR. (Melodic.)

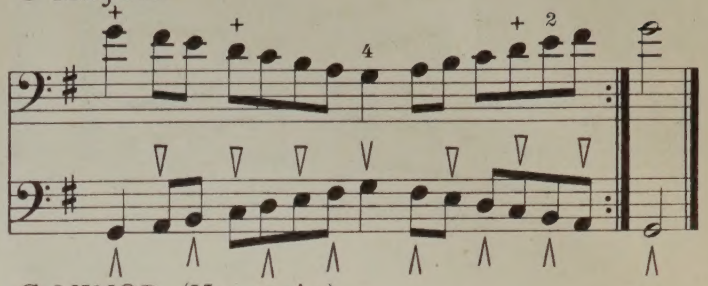


Pedal Scales with Left Hand in contrary motion.

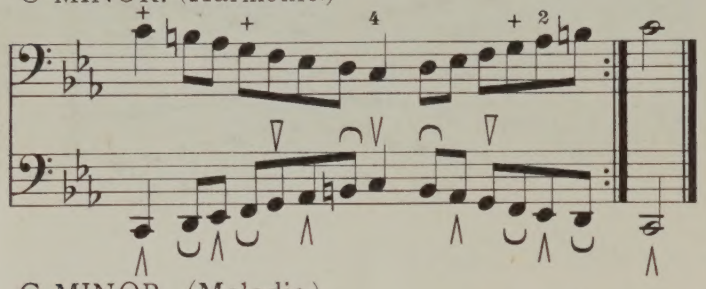
C MAJOR.



G MAJOR.



C MINOR. (Harmonic.)



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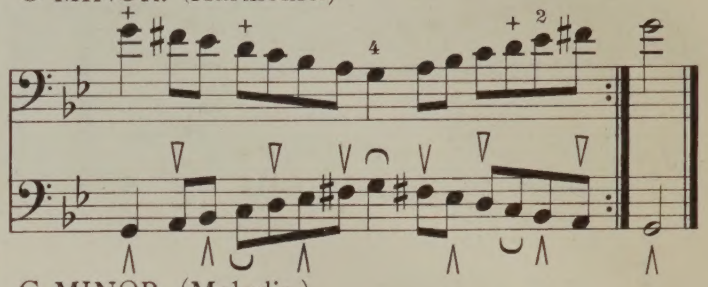
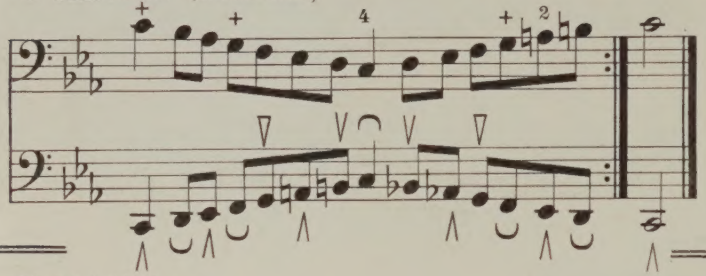


C MINOR. (Melodic.)



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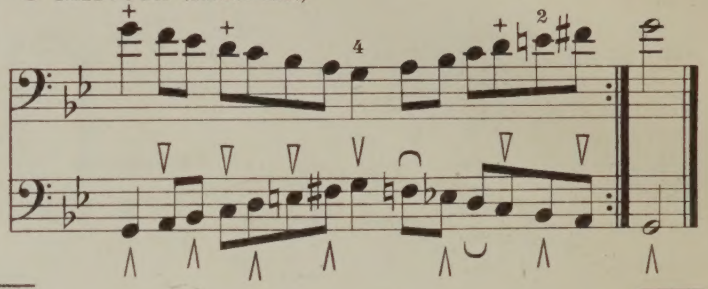
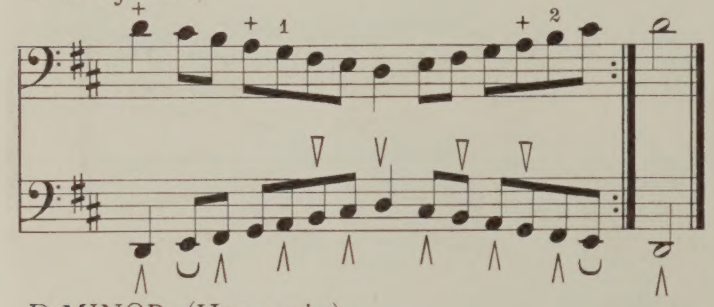
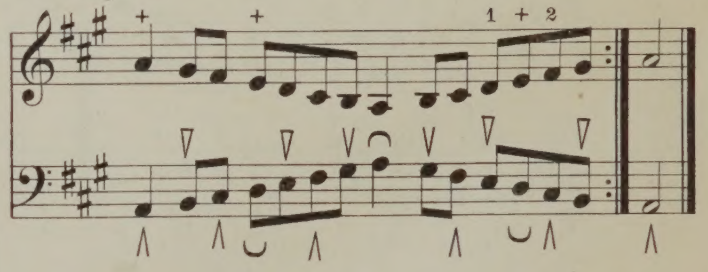


D MAJOR.



A MAJOR.



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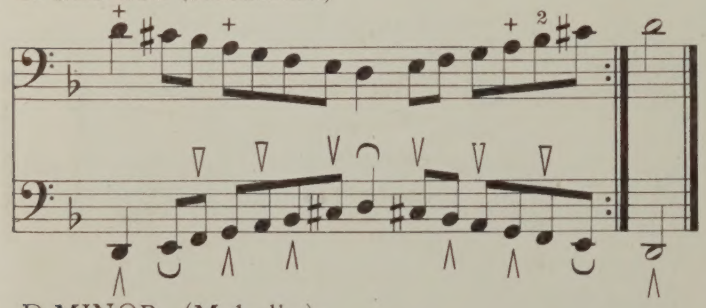

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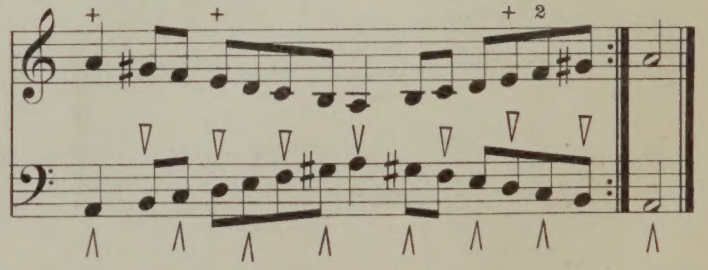
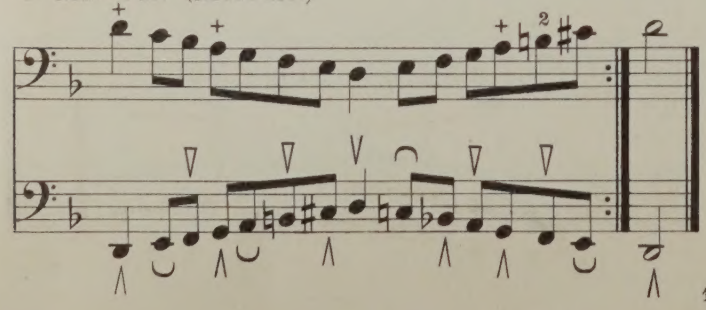


D MINOR. (Melodic.)



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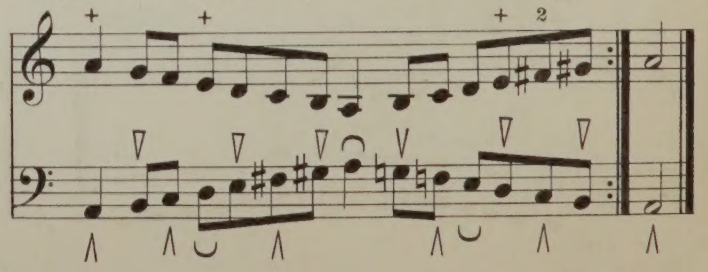

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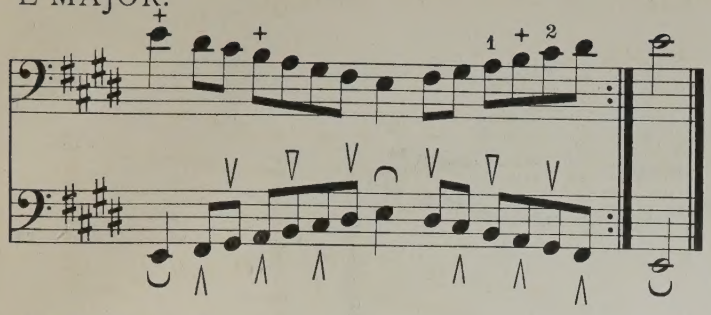

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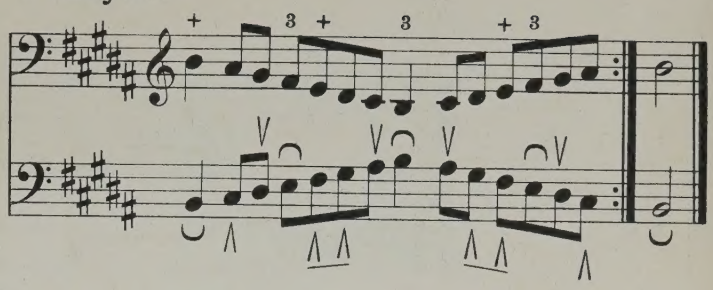

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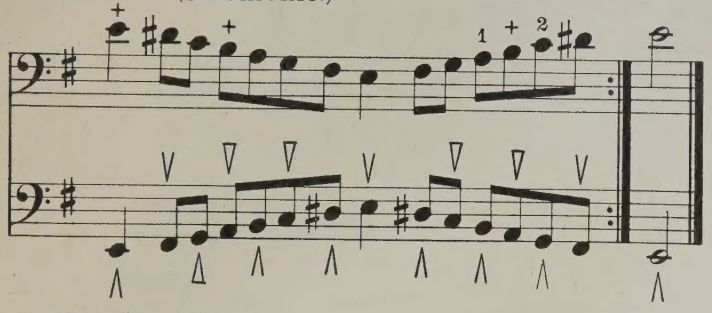

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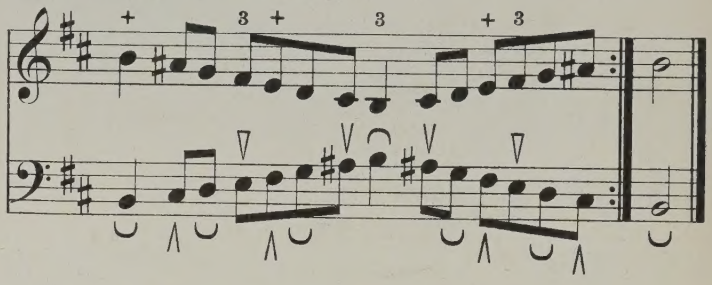

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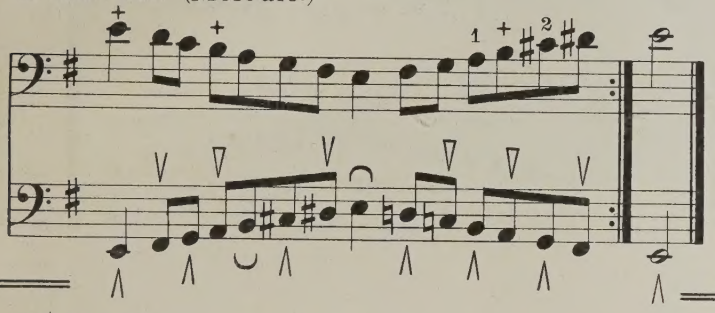

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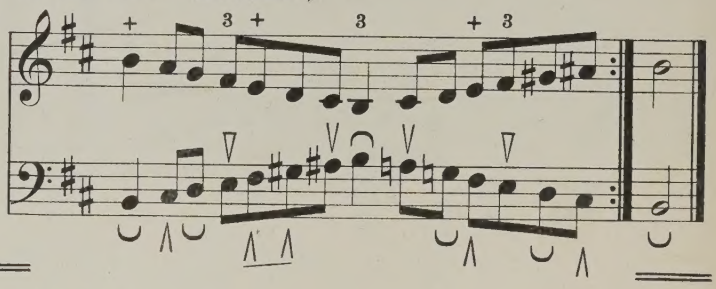

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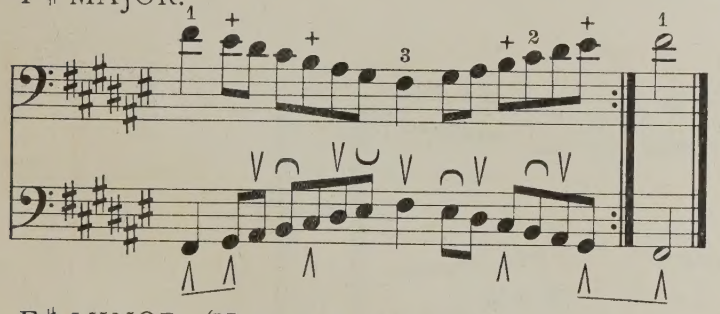

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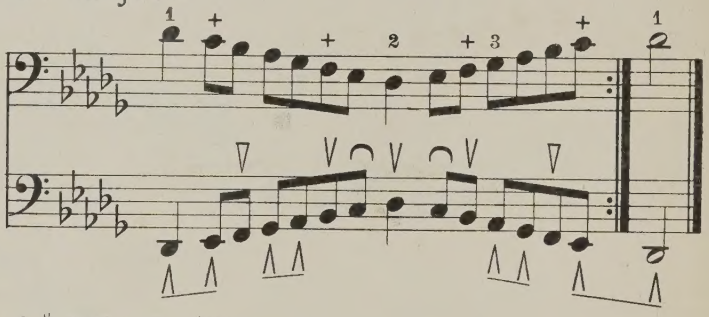

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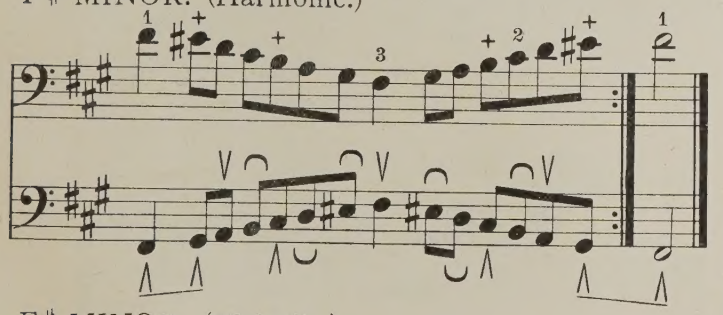

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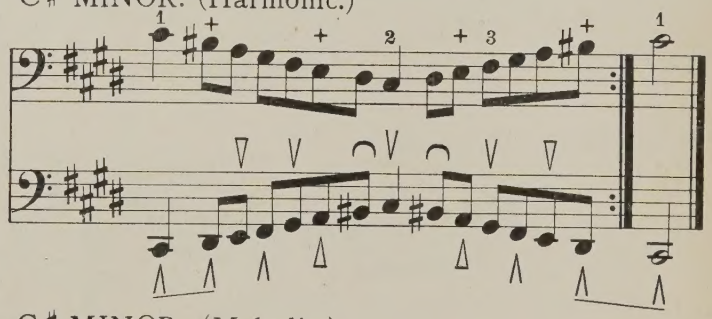

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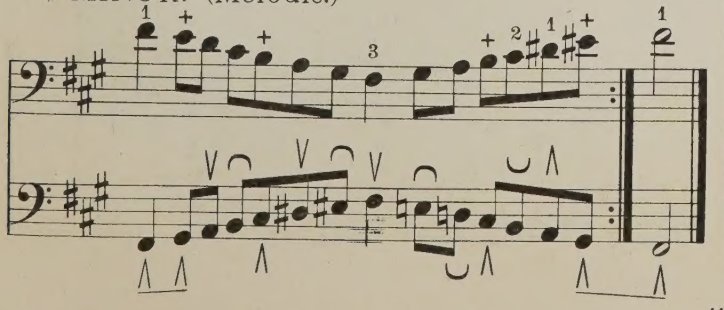

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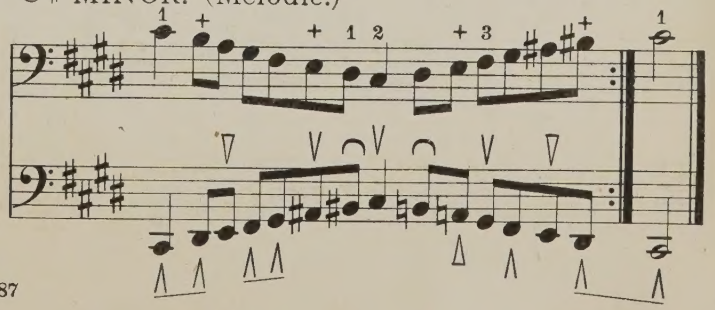

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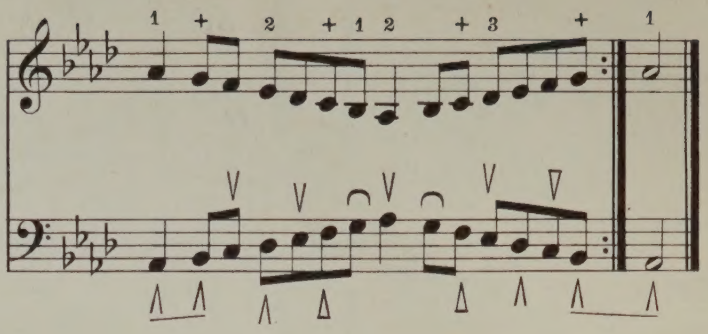

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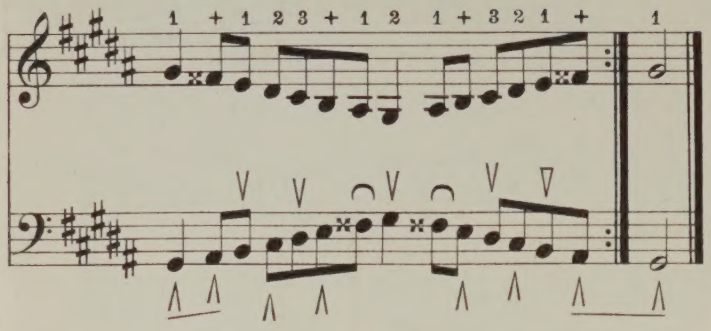

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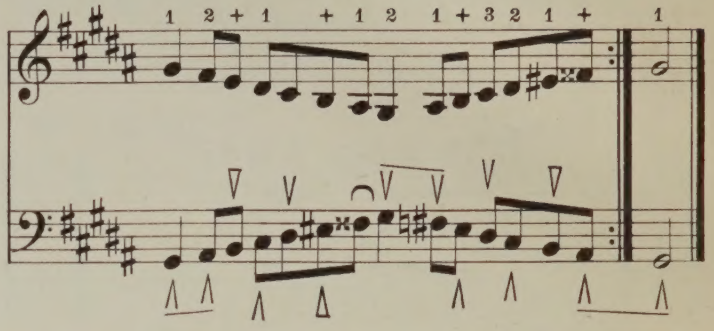

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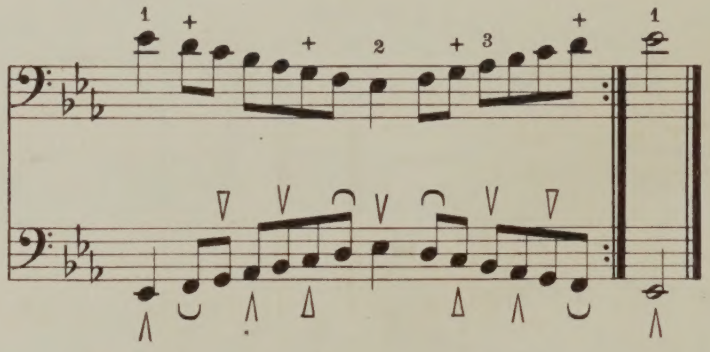

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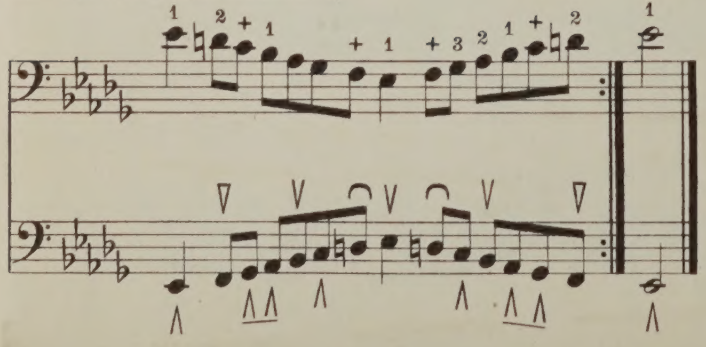

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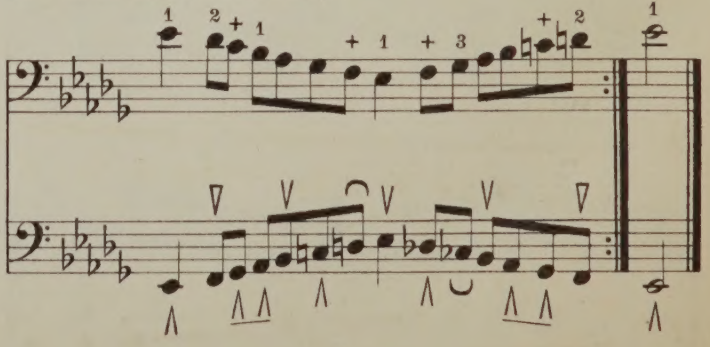

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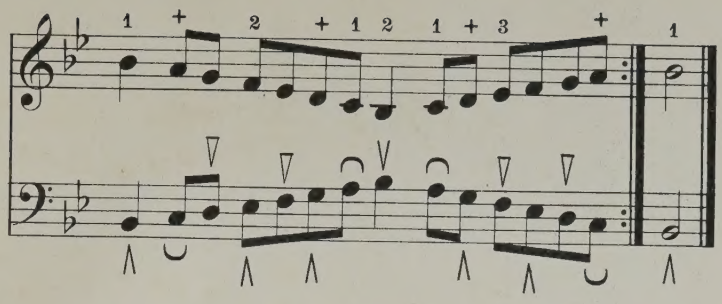

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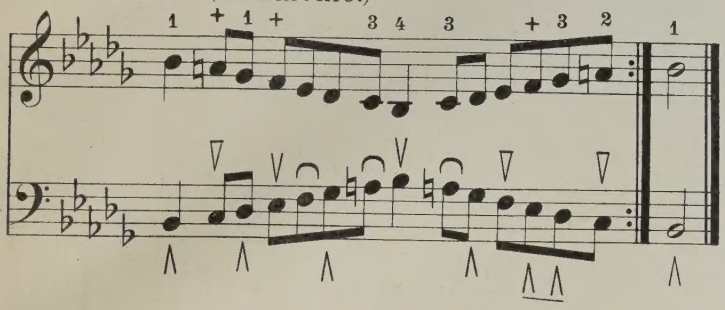

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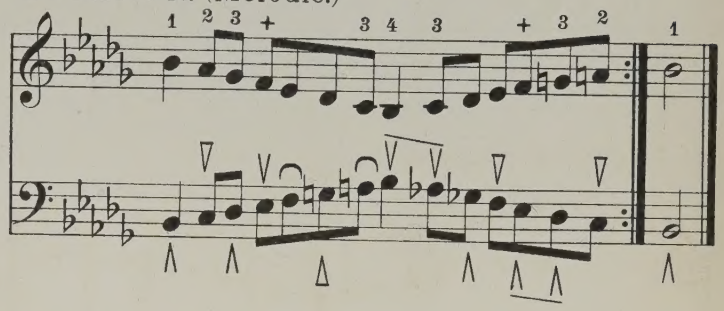

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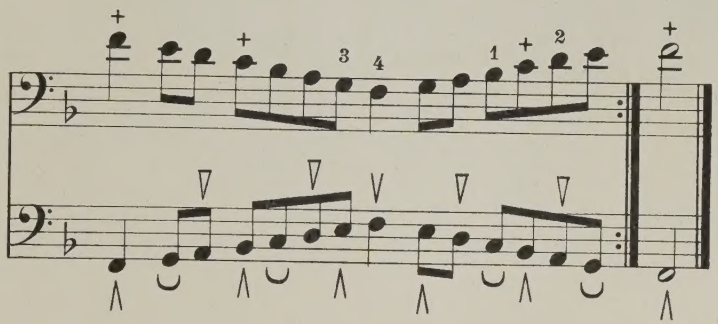

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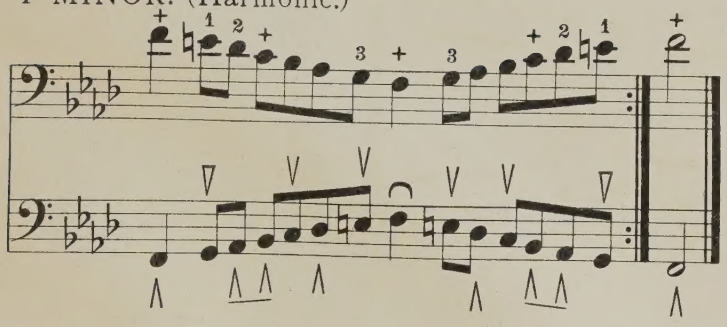

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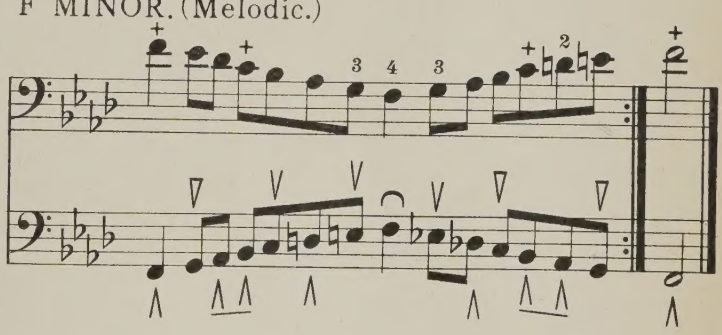

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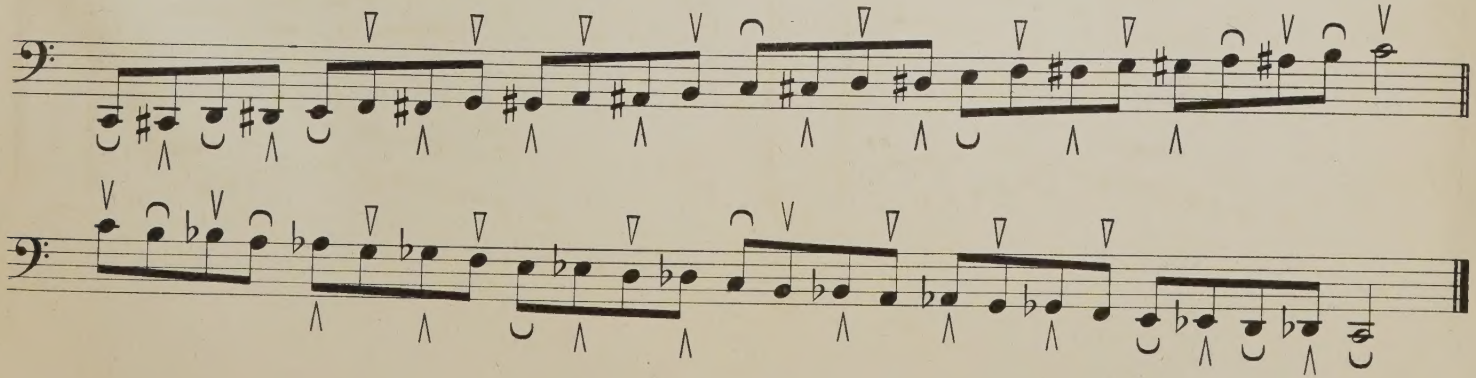

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HARRIS CUTHBERT 1870-1932
FIRST STUDIES AT THE ORGAN/

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Harris, Cuthbert, 1870-1932
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